



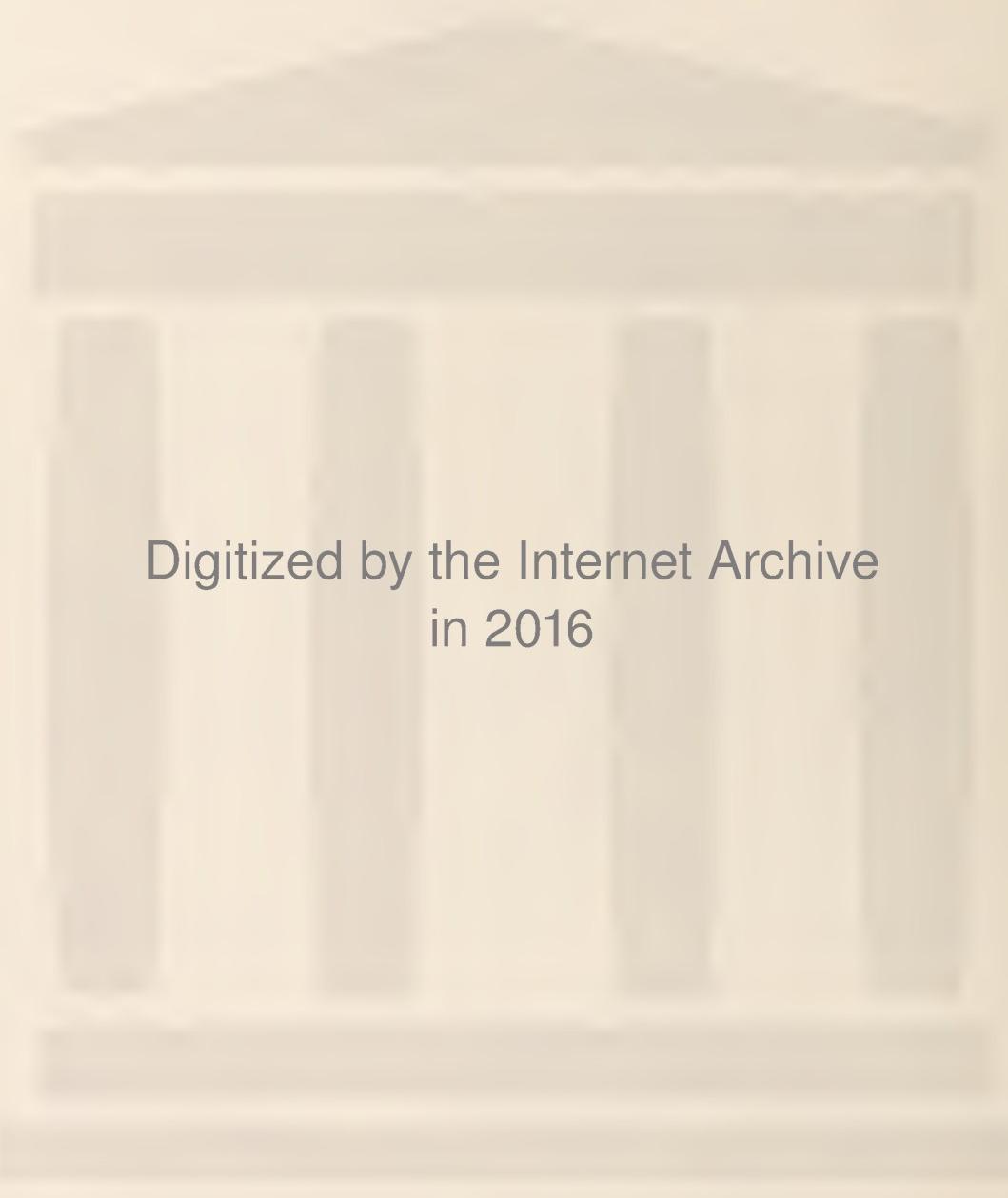
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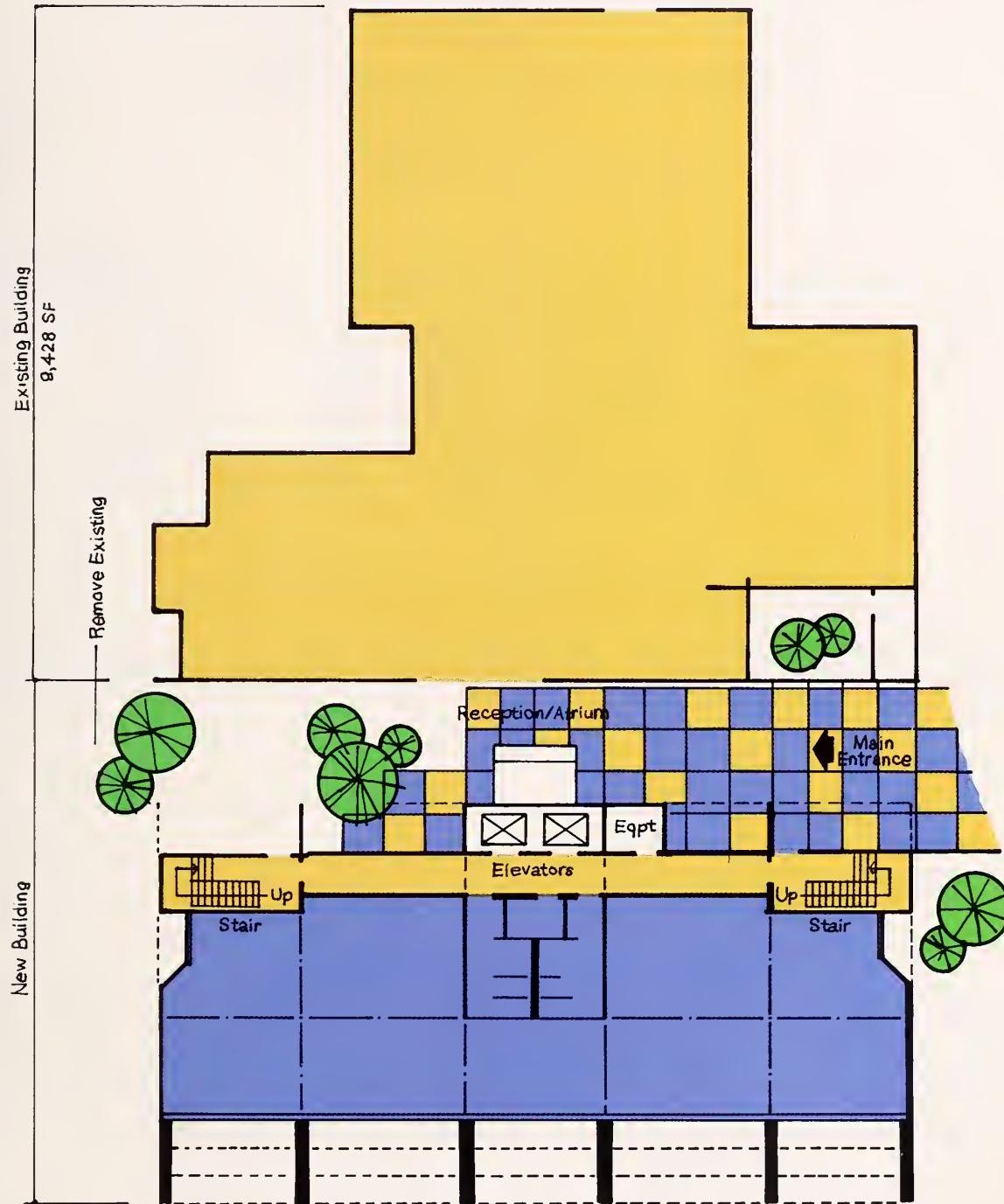
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January 1985, Volume XXVI, Number 1

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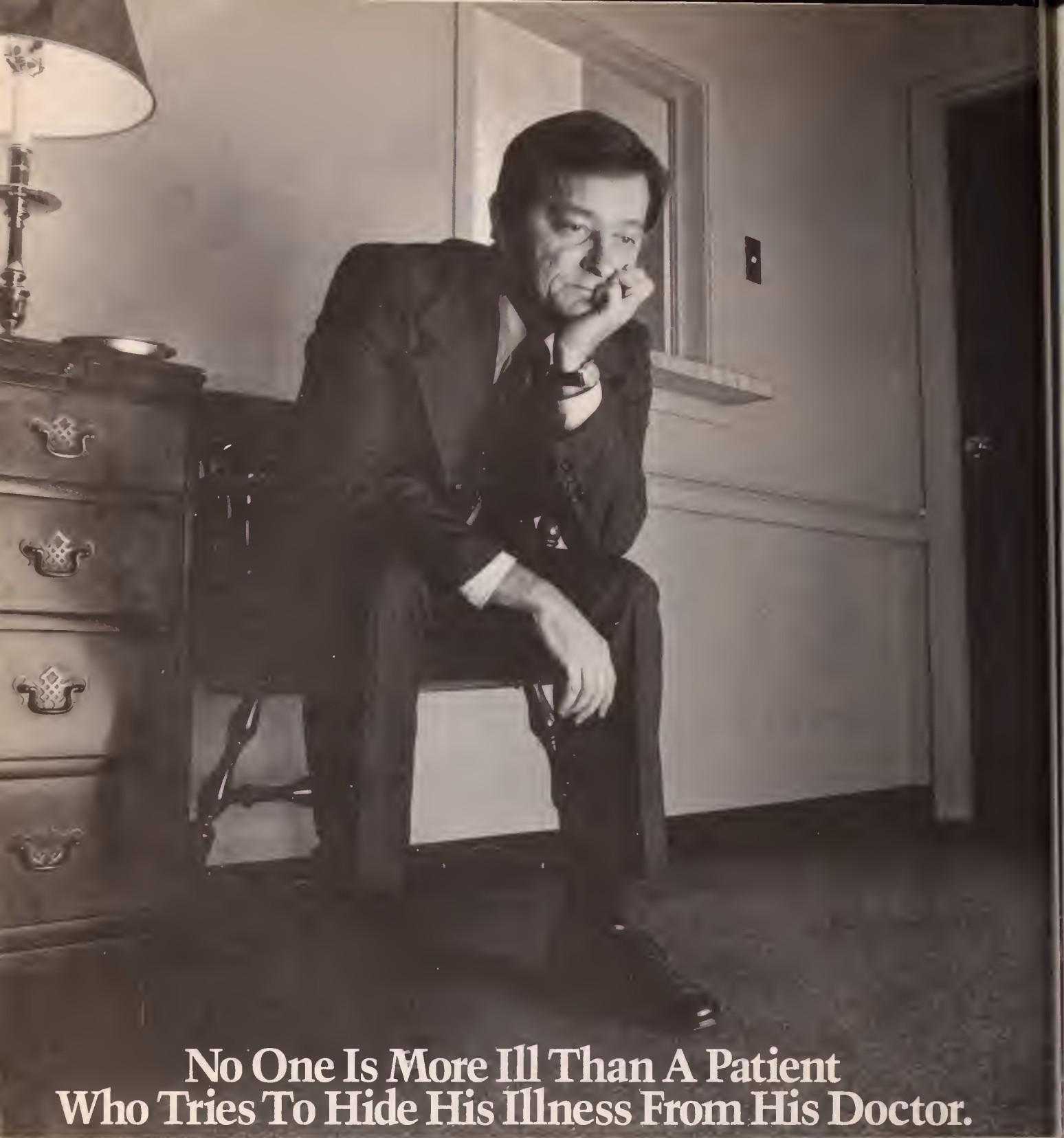
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January 1985

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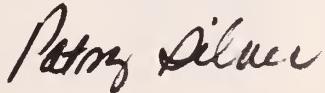
Medicine will face a number of issues in the New Year. The year begins with a special session of the MSMA House of Delegates. At press time, final arrangements were being made for the January 12 meeting. Delegates have been called to Jackson to consider a Board of Trustees report addressing quality and cost issues concerning the profession.

The Board of Trustees report is the product of a special committee which has studied quality and cost issues for several months. Next month's issue of your journal will include a report on the Board's recommendations and the actions of the House of Delegates.

The regular session of the Mississippi Legislature gets underway January 8. Among bills pre-filed for introduction is the Health Services Reorganization Act, which declares the objectives of decreasing costs by increasing efficiency. Specifically, the bill proposes to create the Mississippi Department of Health Care Finance, establish new divisions within the Department of Health, abolish certain boards, and reconstitute other boards and commissions. One goal is to eliminate duplication of functions. This massive bill is of special interest to the profession, and your journal and "Blue Sheet" will provide updates on its progress through the legislative process.

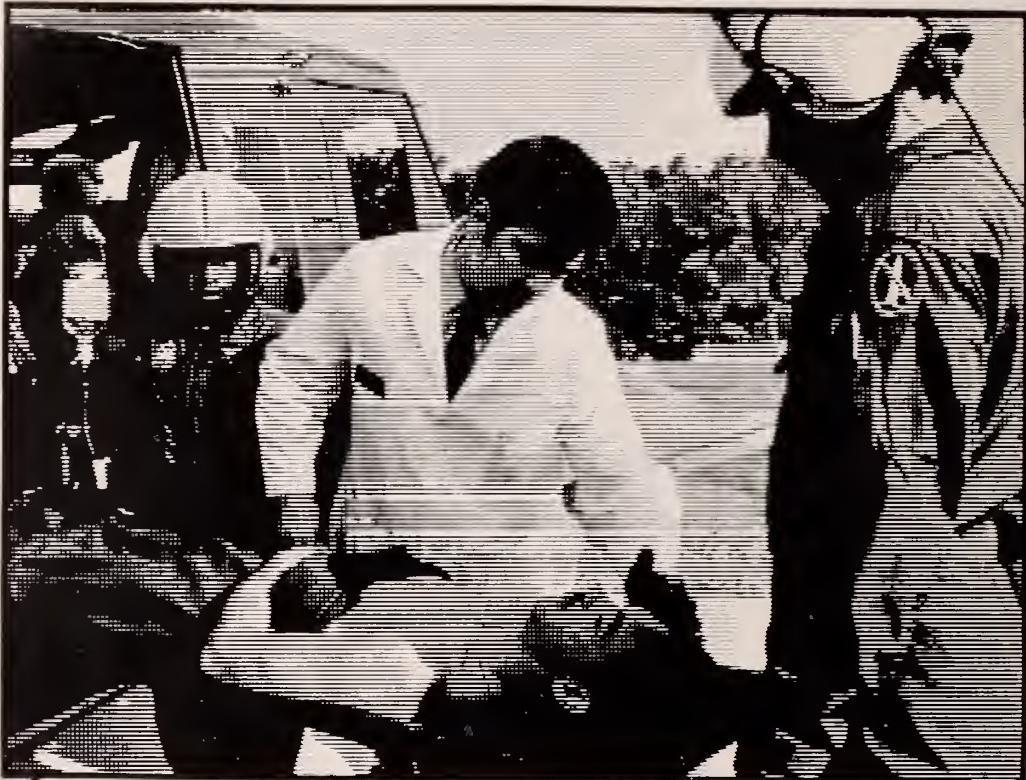
The 99th Congress will examine a number of health issues, including: voucher systems and means testing for Medicare; physician payment under Medicare; tax caps on health insurance premiums; and federalization of the Medicaid program. These issues will be discussed by Congressman Newt Gingrich (R-GA), who will be the featured speaker at the March 1 banquet which marks the beginning of MSMA's 1985 Health Issues Seminar. Other topics scheduled for discussion during the March 2 session are: "How the AMA Views the Issues," "Practice Management and Marketing Health Services," "The Power of Positive Thinking and Motivation," "Alternate Health Care Delivery Systems," and "Hospital Medical Staff Relationships in a Competitive Environment." MSMA members and spouses are urged to plan to attend this important symposium.

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Patsy Silver  
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Titles should be short, specific, and clear. Ordinarily, a title should not exceed 80 characters, including punctuation.

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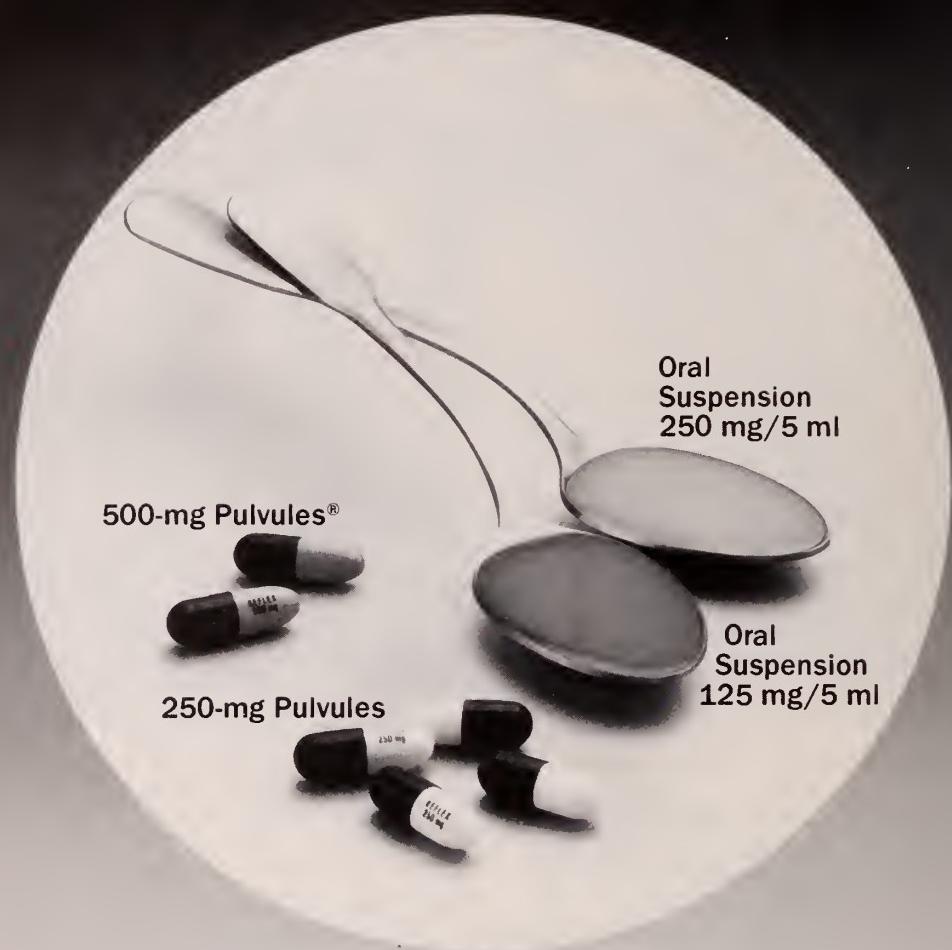
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# DATELINE

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## Patient Information About Medicare Law

Jackson, MS - Posters and brochures that help physicians explain to patients why they have chosen not to sign a "participation" agreement under the new Medicare provisions are still available from the MSMA. The materials, produced by the AMA, help explain changes in the Medicare law and reassure patients that their physicians desire to continue providing quality medical care. Please allow two weeks for delivery.

---

## Child Abuse Symposium Set

Huntsville, AL - The Southern Symposium on Child Sexual Abuse will be held February 20-22 at the Hilton Hotel in Huntsville. The program is sponsored by the Madison County (Alabama) Medical Society and the Children's Advocacy Center, among others. For information, contact Ms. Leigh Johnson, Child Advocacy Unit, District Attorney's Office, Madison County Courthouse, Huntsville, AL 35801.

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## AMA Will Launch PR Campaign

Chicago, IL - A public relations campaign responding to public concerns about health care will be implemented immediately, following action of the AMA House of Delegates at its recent annual interim meeting. The House also called for the AMA to develop a national Relative Value Schedule and voted new membership benefits and reduced dues for states which have unified membership policies.

---

## Symposium on Nutrition And Chronic Diseases

Jackson, MS - A Medical Symposium on Nutrition and Chronic Diseases will be held February 22-23 at the Holiday Inn North in Jackson. The program offers a comprehensive outline of nutrition related diseases and includes discussion of nutritional strategies to prevent and treat cancer, diabetes and arteriosclerotic heart disease. For information, contact the American Cancer Society, 362-8874.

---

## Purchasing Plan Begins Operations

Jackson, MS - More than 200 medical clinics in the state have signed up for the group purchasing program which goes into operation this month by MSMA Services, Inc. The clinics, representing more than 500 MSMA members, will realize savings on medical office supplies through the program's volume purchasing. For information about enrolling in the plan, call or write the MSMA.

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The sublingual and chewable forms of the drug are indicated for acute prophylaxis of angina pectoris when taken a few minutes before situations likely to provoke anginal attacks. Because of a slower onset of effect, the oral forms of isosorbide dinitrate are not indicated for acute prophylaxis.

**CONTRAINDICATIONS:** SORBITRATE is contraindicated in patients who have shown purported hypersensitivity or idiosyncrasy to it or other nitrates or nitrites. Epinephrine and related compounds are ineffective in reversing the severe hypotensive events associated with overdose and are contraindicated in this situation.

**WARNINGS:** The benefits of SORBITRATE during the early days of an acute myocardial infarction have not been established. If one elects to use organic nitrates in early infarction, hemodynamic monitoring and frequent clinical assessment should be used because of the potential deleterious effects of hypotension.

**PRECAUTIONS: General:** Severe hypotensive response, particularly with upright posture, may occur with even small doses of SORBITRATE. The drug should therefore be used with caution in subjects who may have low blood volume depletion from diuretic therapy or in subjects who have low systolic blood pressure (eg, below 90 mmHg). Paradoxical bradycardia and increased angina pectoris may accompany nitrate-induced hypotension. Nitrate therapy may aggravate the angina caused by hypertrophic cardiomyopathy.

Marked symptomatic, orthostatic hypotension has been reported when calcium channel blockers and organic nitrates were used in combination. Dose adjustment of either class of agents may be necessary.

Tolerance to this drug and cross-tolerance to other nitrates and nitrites may occur. Tolerance to the vascular and antianginal effects of isosorbide dinitrate or nitroglycerin has been demonstrated in clinical trials, experience through occupational exposure, and in isolated tissue experiments in the laboratory. The importance of tolerance to the appropriate use of isosorbide dinitrate in the management of patients with angina pectoris has not been determined. However, one clinical trial using treadmill exercise tolerance (as an end point) found an 8-hour duration of action of oral isosorbide dinitrate following the first dose (after a 2-week placebo washout) and only a 2-hour duration of effect of the same dose after 1 week of repetitive dosing at conventional dosing intervals. On the other hand, several trials have been able to differentiate isosorbide dinitrate from placebo after 4 weeks of therapy and, in open trials, an effect seems detectable for as long as several months.

Tolerance clearly occurs in industrial workers continuously exposed to nitroglycerin. Moreover, physical dependence also occurs since chest pain, acute myocardial infarction, and even sudden death have occurred during temporary withdrawal of nitroglycerin from the workers. In clinical trials in angina patients, there are reports of anginal attack's being more easily provoked and of rebound in the hemodynamic effects soon after nitrate withdrawal. The relative importance of these observations to the routine, clinical use of isosorbide dinitrate is not known. However, it seems prudent to gradually withdraw patients from isosorbide dinitrate when the therapy is being terminated, rather than stopping the drug abruptly.

**Information for Patients:** Headache may occur during initial therapy with SORBITRATE. Headache is usually relieved by the use of standard headache remedies or by lowering the dose and tends to disappear after the first week or two of use.

**Drug Interactions:** Alcohol may enhance any marked sensitivity to the hypotensive effect of nitrates.

Iosorbide dinitrate acts directly on vascular smooth muscle; therefore, any other agent that depends on vascular smooth muscle as the final common path can be expected to have decreased or increased effect depending on the agent.

**Carcinogenesis, Mutagenesis, Impairment of Fertility:** No long-term studies in animals have been performed to evaluate the carcinogenic potential of this drug. A modified two-litter reproduction study in rats fed isosorbide dinitrate at 25 or 100 mg/kg/day did not reveal any effects on fertility or gestation or any remarkable gross pathology in any parent or offspring fed isosorbide dinitrate as compared with rats fed a basal-controlled diet.

**Pregnancy Category C:** Isosorbide dinitrate has been shown to cause a dose-related increase in embryotoxicity (increase in mummified pups) in rabbits at oral doses 35 and 150 times the maximum recommended human daily dose. There are no adequate and well-controlled studies in pregnant women. SORBITRATE should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

**Nursing Mothers:** It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when SORBITRATE is administered to a nursing woman.

**Pediatric Use:** The safety and effectiveness of SORBITRATE in children has not been established.

**ADVERSE REACTIONS:** Adverse reactions, particularly headache and hypotension, are dose-related. In clinical trials at various doses, the following have been observed:

Headache is the most common (reported incidence of about 25%) adverse reaction and may be severe and persistent. Cutaneous vasodilation with flushing may occur. Transient episodes of dizziness and weakness, as well as other signs of cerebral ischemia associated with postural hypotension, may occasionally develop (the incidence of reported symptomatic hypotension ranges from 2% to 36%). An occasional individual will exhibit marked sensitivity to the hypotensive effects of nitrates and severe responses (nausea, vomiting, weakness, restlessness, pallor, perspiration, and collapse) may occur even with the usual therapeutic dose. Drug rash and/or exfoliative dermatitis may occasionally occur. Nausea and vomiting appear to be uncommon. Case reports of clinically significant methemoglobinemia are rare at conventional doses of organic nitrates. The formation of methemoglobin is dose-related and, in the case of genetic abnormalities of hemoglobin that favor methemoglobin formation, even conventional doses of organic nitrates could produce harmful concentrations of methemoglobin.

**DOSAGE AND ADMINISTRATION:** For the treatment of angina pectoris, the usual starting dose for sublingual SORBITRATE is 2.5 to 5 mg for chewable tablets, 5 mg, for oral (swallowed) tablets, 5 to 20 mg, and for controlled release forms, 40 mg.

SORBITRATE should be titrated upward until angina is relieved or side effects limit the dose. In ambulatory patients, the magnitude of the incremental dose increase should be guided by measurements of standing blood pressure.

The initial dosage of sublingual or chewable SORBITRATE for prophylactic therapy in angina pectoris patients is generally 5 or 10 mg every 2 to 3 hours. Adequate controlled clinical studies demonstrating the effectiveness of chronic maintenance therapy with these dosage forms have not been reported.

SORBITRATE in oral doses of 10 to 40 mg given every 6 hours or in oral controlled release doses of 40 to 80 mg given every 8 to 12 hours is generally recommended. The extent to which development of tolerance should modify the dosage program has not been defined. The oral controlled-release forms of isosorbide dinitrate should not be chewed.

**DOSAGE FORMS AVAILABLE:** Sublingual Tablets (2.5, 5, 10 mg), Chewable Tablets (5, 10 mg), Oral Tablets (5, 10, 20, 30, 40 mg); Sustained Action Tablets (40 mg).



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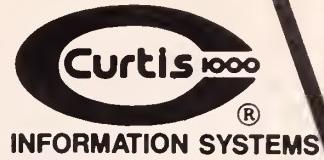


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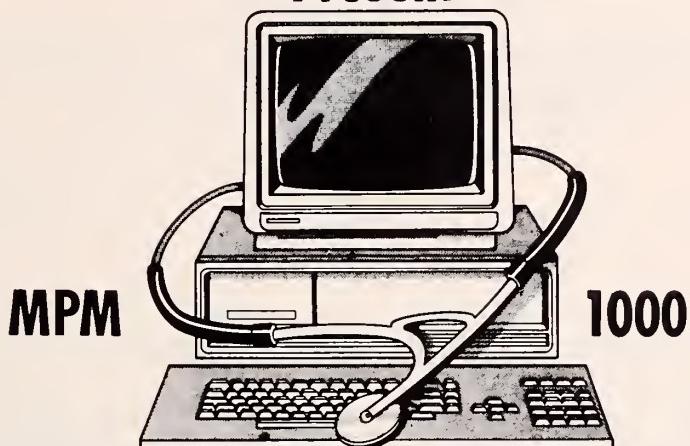
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ORIGINAL PAPERS

# Endourology — A Continuum

TOXEY M. MORRIS, M.D. and NATHAN P. SHAPPLEY, M.D.

Hattiesburg, Mississippi

UROLOGISTS have been active endoscopists since 1887, when Nitze and Leiter developed the incandescent cystoscope. The ability to visualize target organs with instruments enabled endoscopic urologic surgery to move swiftly onward from the 1930's when the first transurethral resections were done through the 1960's and 70's when fiberoptic transurethral endoscopic prostatic resection largely replaced open prostatectomy in that continuum of progress.

Today, endoscopic instruments are being used to pluck stones from deep in the recesses of the kidney itself. The sophistication of radiographic contrast technique and image intensification has provided a high degree of diagnostic accuracy in urology, and in recent years, immense therapeutic advantage. Since 1826, the lower urinary tract has been visually accessible to the appropriate instruments, but the upper urinary tract, from the brim of the true pelvis to the inner renal calyces, has required open surgery in most cases to remove stones, obtain biopsies, or merely see the structures. Conventional approaches to the kidney for nephrolithotomy, pelviolithotomy and ureterolithotomy usually require skin incisions greater than ten centimeters in length, cutting or splitting of external oblique, internal oblique and transversus abdominus muscles, dissection of the retroperitoneum, and incision of Gerota's fascia. In-hospital convalescent time ranges from one to two weeks, and adequate healing of incised muscles usually requires six to eight weeks, sometimes representing substantial economic discomfort to the pa-

tient and certainly considerable physical discomfort.

Since 1982, exciting new techniques have been developed by Marberger<sup>1</sup> in Austria, and Lange, Clayman, Smith and Fraley in Minnesota which may produce highly acceptable results with regard to stone removal, yet allow for shortened hospital stay and greatly reduced posthospital convalescent periods. These techniques are generally termed "endourology,"<sup>2</sup> or insertion of appropriate endoscopic instruments into the kidney, renal pelvis or ureter usually for the purpose of stone retrieval or stone destruction by ultrasound. There is some confusion in lay literature about these techniques. Perhaps this article will serve both to inform physicians who advise and care for stone patients and to provide a rudimentary glossary.

The basis for successful endourologic stone manipulation in the kidney involves six steps:

(1) Insertion of a percutaneous nephrostomy under local anesthesia by a qualified radiologist or urologist;

(2) Dilation of the tract thus established from the skin to the kidney to a diameter through which practical instruments may be introduced;

(3) Visualization of the offending stone or stones with a nephroscope which permits manipulation of the stone while under direct vision;

(4) Direct grasping of the stone with forceps and removal through the nephrostomy tract (percutaneous nephrostolithotomy), or

(5) Ultrasonic fragmentation (ultrasonic lithotripsy) into pieces small enough to be directly withdrawn;

(6) Reinsertion of a nephrostomy tube for one to five days postoperatively to provide drainage or irrigation, as necessary. All manipulation and dilatation

The authors are engaged in the private practice of urology in Hattiesburg, MS.

tion is done under fluoroscopic control. A well-functioning C arm real-time image intensifier is essential.

After postmanipulation bleeding is over, usually in one to three days, a nephrostogram assures the integrity of the collecting system, and the nephrostomy tube is withdrawn and the patient discharged within five days of the original manipulation. Followup nephrotomography or pyelography can be performed as indicated.

An area where endourologic procedures have real advantage is in recurrent stone disease and repeat stone surgery which is often more difficult, bloodier, costlier and more disabling than primary stone surgery.

#### Case Report

A typical scenario in our hospital recently was: B.D., a 24-year-old dialysis nurse was seen in 1981, with a one year history of intermittent flank pain, low grade fever and recurrent urinary infection. X-rays showed a 1 cm calculus in the right renal pelvis and a 2 mm calculus in the middle and upper

calyces. Coagulum pyelolithotomy was performed through a flank incision and the large pelvic calculus was removed in addition to one of the smaller stones. One of the 2 mm calculi in the superior calyx could not be removed. She was discharged on the tenth postoperative day and returned to her regular duties as a registered nurse six weeks after her surgery. This patient again presented in February of 1984, with right flank pain, abdominal pain, nausea, fever and recurrent urinary tract infection. X-rays revealed two calculi on this occasion, each 9 mm in diameter (see Figure 1), one located in the lower pole calyx and the other one in the right renal pelvis. The patient was admitted to the hospital, nephrostomy was performed in the radiology suite, and 24 hours later nephrostolithotomy was carried out without complication. The nephrostomy tube and ureteral stent were removed two days following the nephrostolithotomy (see Figure 2) and the patient was discharged on the fourth postoperative day. She was



Figure 1. KUB shows two 9 mm calculi ideally located for endourologic manipulation.



Figure 2. KUB demonstrates the presence of the nephrostomy tube and the angiographic catheter traversing the ureter and resting within the bladder, providing emergency access to the kidney should the nephrostomy tube be lost.

able to return to her regular duties as a dialysis nurse on the tenth postoperative day.

## Discussion

If the stone is equal to or less than one centimeter in diameter, it may usually be grasped and removed through the nephrostomy tract under direct vision and fluoroscopic control. If the stone is too large for direct removal, a device which transmits sound waves at 25 kilohertz, the sonotrode, is placed through the rigid nephroscope (see Figure 3) and into contact with the stone, still under direct vision; and via the mechanical action of the sonotrode, the stone is broken into manageable fragments (ultrasonic nephrolithotripsy), and each fragment removed individually. Existing sonotrodes can reduce the stone fragments to powder which is simultaneously sucked out of the kidney, but usually simple fragmentation and removal suffices. The calyces may then be inspected with a flexible nephroscope (see Figure 4) and remaining fragments, if any, removed with the appropriate baskets, forceps, etc. A suitable nephrostomy tube is placed into the renal pelvis and a nephrostogram outlines the anatomy of the collecting system. The nephrostomy is sutured in place, connected to drainage, and the patient discharged from the operative suite. A safety guidewire or angiographic catheter may be left in place in the ureter in case the nephrostomy tube is dislodged postoperatively. The usual operating time is 45 to 75 minutes, though this may vary considerably. Anesthetic techniques must be chosen carefully. The initial percutaneous nephrostomy is generally done under local anesthesia, but definitive dilation of the tract and manipulation of the stone most commonly is done under general endotracheal or epidural anesthesia. Patients usually receive a liquid diet the evening after the manipulation and a normal diet the following day. The patient may be discharged when postmanipulation bleeding is over and nephrostograms are normal, usually within five days.

Another facet of endourology, ureterorenoscopy, permits us to visualize, entrap, and remove calculi from the ureter under direct vision rather than use "blind" basket techniques. Ultrasound may also be used through the ureterorenoscope to fragment stones too large to pass through the ureter that would have previously required open ureterolithotomy. The entire ureteral length, from the ureteral meatus to the renal pelvis, may be seen with this instrument. Stones may be manipulated or biopsies taken as necessary.

These procedures are no longer considered ex-

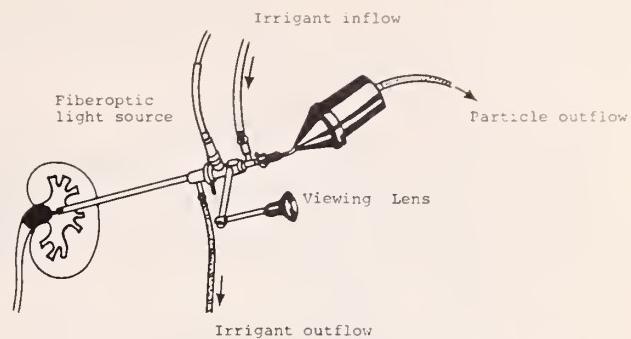


Figure 3. The rigid nephroscope with the sonotrode inserted is schematically demonstrated.

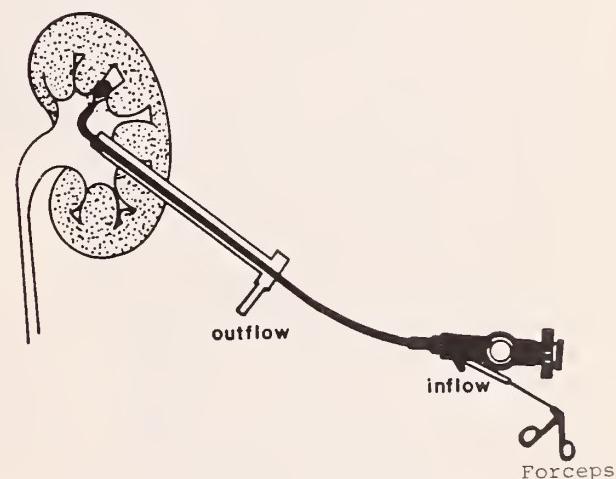


Figure 4. The flexible nephroscope, a modification of the choledochoscope, is shown.

perimental, but patients should be adequately informed that complications may occur with these as well as with any other invasive technique. These complications may lead to open urologic surgery, but the complication rate reported from large centers performing these procedures seems no higher than that for conventional surgery.

Hospitals embarking on endourology must be prepared for considerable expense in instrumentation. Urologists who perform the procedures must partake of the postgraduate courses available under the tutelage of those urologists who have perfected the techniques. Radiologists should be proficient in inter-

## ENDOUROLOGY/Morris and Shapley

vventional techniques. "Hands-on" experience using animal and cadaver models seems to be essential in familiarization with the instruments and the intra-renal and intraureteral anatomy, now seen from an entirely new vantage point.

Patients should realize that the indications for invasion of the urinary tract for stone disease have changed little, but the techniques have changed dramatically.

There are only two or three hospitals in Mississippi performing these procedures as of this report, but as more urologists are trained in endourology and more patients demand its advantages, it will become more common.

The next step in stone management may be com-

pletely noninvasive, however. Extracorporeal shockwave lithotripsy (ESWL) was developed in Germany and recently reported upon by Chaussy, and has been 98 percent successful in the noninvasive destruction of intrarenal stones. ESWL is experimental, and is currently under investigation at six centers in the United States before FDA approval can be granted. When this new technology becomes available and can be integrated with existing endourologic and open urologic techniques, *Journal* readers will be informed.

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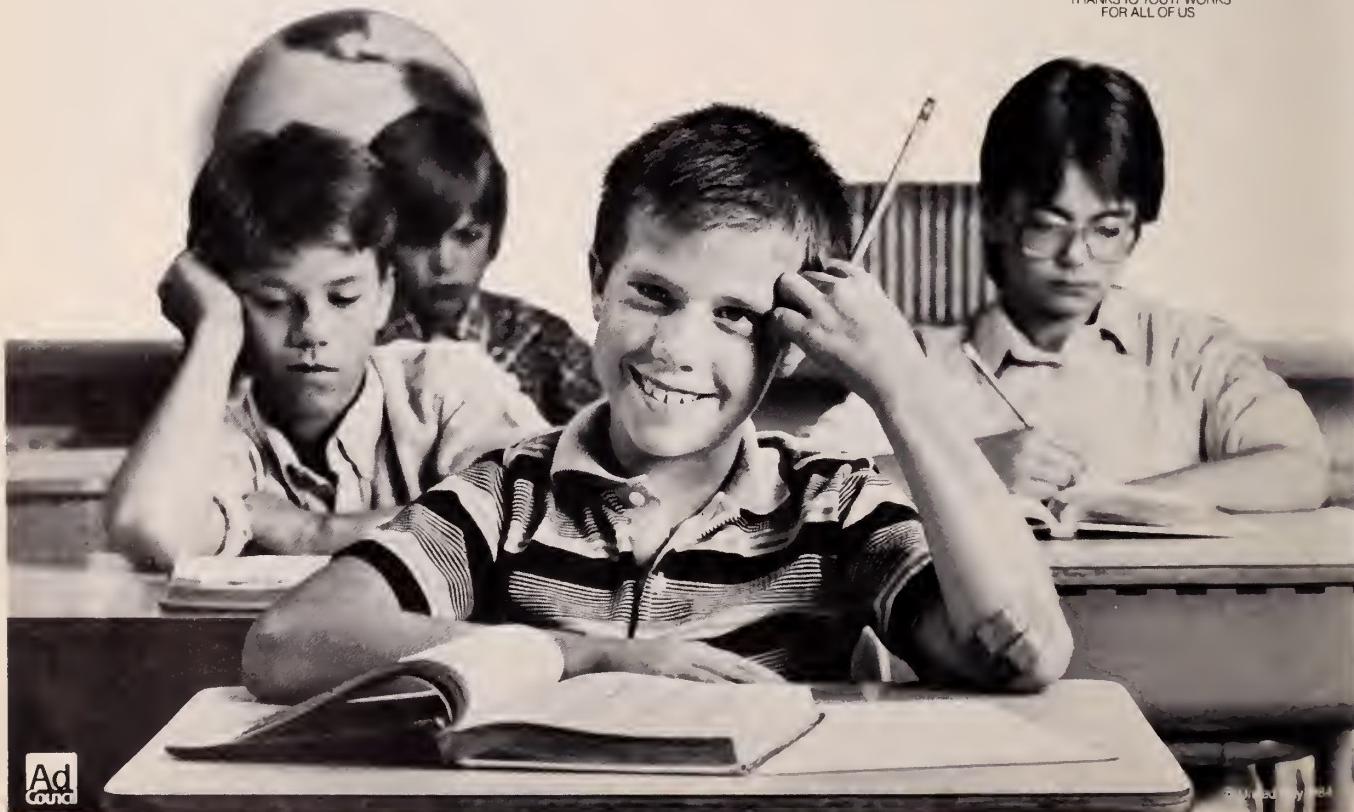
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# Medullary Carcinoma of the Thyroid Retrospective Diagnosis Using Current Techniques on Late Metastases

SUSAN S. CANNON, M.D., WARREN W. JOHNSON, M.D.,  
VIRGINIA J. LOCKARD, PH.D., and ROBERT E. LEWIS, JR., PH.D.  
Jackson, Mississippi

IN 1966 A 44-YEAR-OLD white woman underwent left thyroidectomy for a tumor diagnosed "adenocarcinoma of the thyroid, largely papillary." In 1976 she underwent right radical mastectomy and subsequent chemotherapy for infiltrating ductal carcinoma.

In December 1980 she presented with left neck nodules diagnosed "metastatic carcinoma." A right thyroidectomy was performed with no evidence of tumor found.

In 1981 she presented with a 0.5 cm left posterior cervical mass. Excisional biopsy was diagnosed "metastatic poorly differentiated carcinoma." Ultrastructural studies of a portion of this tissue revealed the presence of a large amount of amyloid and many intra-cytoplasmic neurosecretory granules (see Figures 2a and 2b). Chest films showed a right paratracheal mass which was biopsied and appeared histologically similar to the left cervical mass. Immunoperoxidase stains for calcitonin (Immulok, Inc., Carpinteria, Ca.) performed on both the cervical and paratracheal specimens revealed widespread peroxidase-antiperoxidase reaction for tumor cell cytoplasmic calcitonin. Subsequent review of the 1966 slides showed a histologic pattern of that tumor in some areas virtually identical to that of present metastases. On the basis of electron microscopy and immunoperoxidase results as well as review of the 1966 thyroid tumor, the cervical and paratracheal biopsies were diagnosed as metastatic medullary carcinoma of the thyroid. A serum calcitonin level then obtained was markedly elevated. Despite chemotherapy (Adriamycin and Cytoxan) the patient's calcitonin levels remained elevated and she subsequently developed malignant pleural effusions and died, the course of her disease being 16 years.

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*The authors present a case of medullary carcinoma of the thyroid in which the histologic pattern is one of papillary growth. The tumor was originally interpreted as papillary carcinoma of the thyroid. The tumor recurred fourteen years post-surgical resection. Identification of amyloid and intracytoplasmic secretory granules by electron microscopy, shown to be cytoplasmic calcitonin by immunoperoxidase technic, established the diagnosis of medullary carcinoma of the thyroid in recent biopsies.*

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## Discussion

Medullary carcinoma of the thyroid comprises about 4% of all primary malignant thyroid tumors.<sup>1, 2</sup> Hazard established it as a clinicopathologic entity in 1959 when he observed that 21 of 600

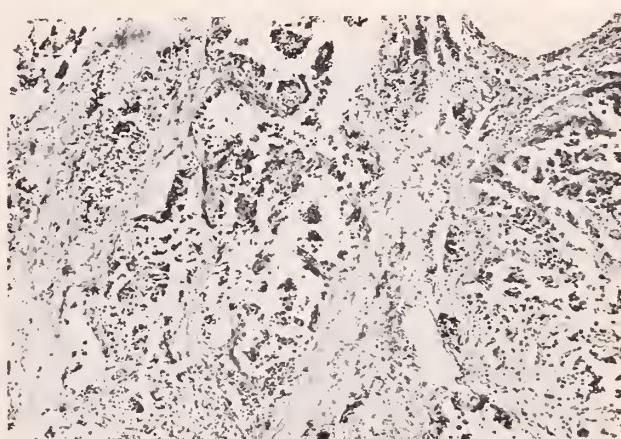


Figure 1a. Photomicrographs of 1966 excisional biopsy showing pseudopapillary pattern of the tumor.  $\times 100$  H and E.

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From the Department of Pathology, University Medical Center, Jackson, MS

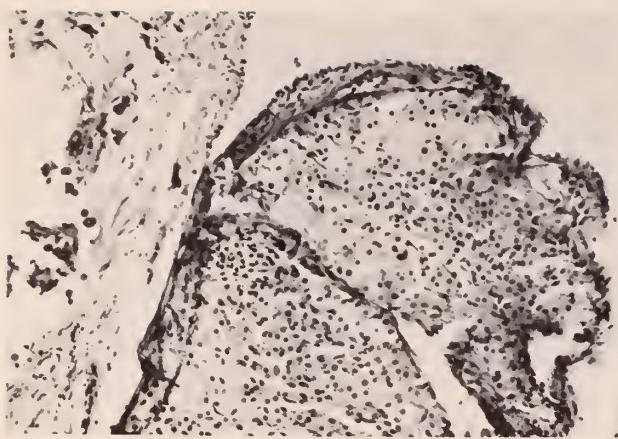


Figure 1b. Higher magnification of (a) showing extracellular and homogenous pink structures (consistent with amyloid).  $\times 200$  H and E.

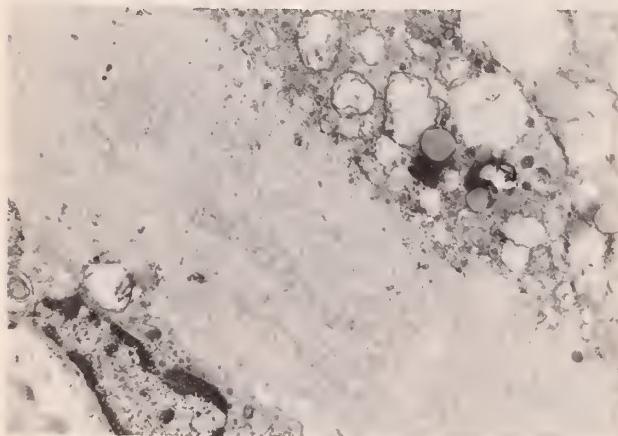


Figure 2a. Electron micrograph of 1981 excisional biopsy reveals tubular amyloid microfibrils ( $\times 11,162$ ).

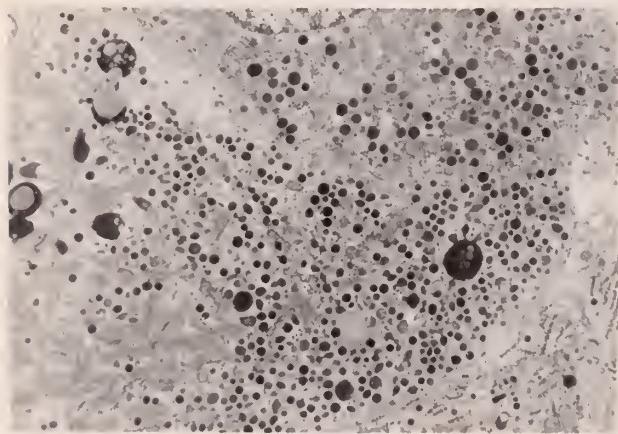


Figure 2b. Electron micrograph of 1981 excisional biopsy reveals neurosecretory granules ( $\times 20,520$ )

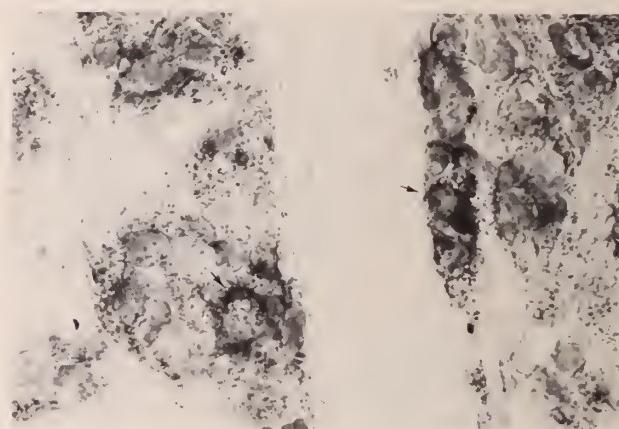


Figure 3. Groups of tumor cells, separated by fibrous septae, many of which demonstrate dark, cytoplasmic rings of immunoperoxidase positive granules — calcitonin (arrows).  $\times 1000$

thyroid carcinomas removed at Cleveland Clinic Hospital between 1926 and 1957 presented a solid non-follicular histologic pattern with amyloid present in the stroma (demonstrated by metachromasia with crystal violet).<sup>1</sup> Clinically he noted a high incidence of lymph node metastases and an intermediate degree of malignancy.<sup>3</sup> Survival from diagnosis to death ranged from 0.3 to 27 years.<sup>3</sup>

Williams in 1966 demonstrated the origin of medullary carcinoma from para-follicular C-cells.<sup>4</sup> Although the existence of calcitonin was first reported in 1962,<sup>5, 6</sup> its presence in medullary carcinoma cells was not reported until 1969 when Bussolati used immunofluorescent antibodies to the pure porcine hormone.<sup>7</sup> The ultrastructure was described in 1968.<sup>8</sup> Many histologic variations of medullary carcinoma of the thyroid have been described, among them papillary (pseudopapillary as in present case).<sup>9, 10</sup>

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# The Sociology of Science: Women and Medicine In Nineteenth Century Mississippi

LUCIE R. BRIDGFORTH, Ph.D.

Olive Branch, Mississippi

DR. E. P. SALE, president of the Mississippi State Medical Association in 1880, would be shocked if he walked into the University of Mississippi Medical Center today, but not just because of the great advances in science and technology which have transpired over the last century. An equally amazing — and no doubt disturbing — change that would greet him would be the fact that about a quarter of the medical students — even more of those in the health related professions — are females. For Dr. Sale chose as the subject of his presidential address that year the peculiarities of the female sex. Principal among these peculiarities was his belief that women were biologically unsuited for any activity which might take them outside the home. According to Sale, "too much brainwork, too little housework," a sin of which all serious students are guilty, jeopardized the health of women and, ultimately, the future of the human race.<sup>1</sup>

Sale's admonitions did not fall on deaf ears. In fact he was stating a point of view that was widely accepted not only by the general public but also by the educated medical professionals of his day. Even in today's sterilized, anesthetized, computerized world, medicine cannot be divorced from the social milieu in which it functions. It is not surprising, then, that a century ago, as the secrets of science were just beginning to unfold, cultural factors exerted a powerful influence on the theory and practice of medicine. This relationship between culture and medicine, between social ideology and scientific ideas, was especially pronounced where the "Woman Question" was concerned. In a period that was dominated by a rigidly stereotyped vision of what constituted "true womanhood" and threatened by the earliest stirrings of the woman's movement,

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*During the nineteenth century, as the dawn of scientific medicine was just beginning to appear, cultural factors exerted a powerful influence on the theory and practice of medicine. A close relationship existed between social ideology and scientific ideas, especially where women were concerned. The author notes that in the diagnosis and treatment of female disorders, in advice regarding proper behavior, in the handling of pregnancy and childbirth, and in the relationship between the doctor and his patient it is almost impossible to separate medical theory from the prevailing world view regarding woman's place in life. This paper demonstrates the sociology of science in nineteenth century Mississippi.*

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medical theory was both a cause and an effect of the prevailing world view.

Throughout the nineteenth century women were categorized separately in almost every dimension of life — work, economics, politics, education, the law. Medicine and health care were no exception. As a result physicians placed great emphasis on that which was unique about women, namely their reproductive capacities. Some experts held that the ovaries gave woman "all her characteristics of body and mind."<sup>2</sup> Others viewed the uterus as the "controlling organ of the female body" and dubbed this "The Age of the Womb."<sup>3</sup> The hundreds of journal articles and special lectures which addressed the peculiar health problems of women attest to a near obsession with female health and reflect medical judgments heavily laden with cultural attitudes.

Because a woman's reproductive system was considered so central to her very being, it dictated her

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Ms. Bridgforth is an instructor in the history department at Northwest Mississippi Junior College. Her major area of research has been the history of medicine.

role in life. Biology was destiny, and she was clearly destined to be a wife and mother. Consequently she was assigned to a severely circumscribed sphere of domestic activity which supposedly allowed her to fulfill her purpose without straining her weak and delicate system. Any woman who dared to challenge her destiny or expand her sphere did so at grave risk. Social critics warned that such challenges, through business activity or political participation, would lead to the collapse of the family and ultimately of the whole social order. Physicians warned that inappropriate mental, moral, or social behavior would cause the female system to retaliate with disease of the mind and body.

### Women and Education

One special concern of nineteenth century physicians was the growing interest that women displayed in advanced education. MSMA President Sale articulated this fear. It was dangerous for a woman to overexert her mental capacities, Sale argued, for difficult mental activity could lead to nervous problems, weight loss, and poor color. Advanced education so depleted a young girl's physical strength that it took at least a year of quiet rest at home for her to recuperate. Even with rest, Sale continued, serious study might enfeeble the body, rendering a young woman incapable of motherhood and inviting premature death. "Precocious cleverness is attainable only at the cost of physical and sexual development," he concluded. "Manifold diseases — many of them of uterine complexion — date from the recitation room."<sup>1</sup>

Not only did taxing the brain jeopardize a woman's health, but exciting her "exquisite sensibilities" was equally threatening. Since women were especially gullible and unstable, Sale pointed out, it was unwise for them to read romantic novels which might stimulate their sensitive nervous systems too much. "Injudicious reading" of sentimental fiction, he asserted, would produce "baneful physiological effects." So would injudicious dress and behavior. Too often women were "slaves" to fashion, the doctor lamented, risking illness by baring their limbs and bosoms, constricting their respiratory organs with tightly laced, steel-ribbed corsets.<sup>1</sup> Moreover, indulgence in an active but dissipating social life, characterized by dancing too vigorously or venturing into the cool night air, could precipitate years of female disorders for an intemperate young lady.<sup>4</sup>

Yet it was not only the indiscreet who encountered problems. Even those who faithfully adhered to strict social standards also faced continual health

trouble. No doubt there were some real physical and psychological reasons for this. With diagnostic and therapeutic techniques far from adequate, many women suffered from persistent low grade infections and other chronic problems. Moreover the strain of repeated pregnancies and childrearing were not insignificant, nor were the debilitating diseases that were endemic to the semi-tropical South. Still these real problems were exacerbated by social convention, which identified weakness and delicacy with femininity.

The medical community reinforced this popular perception by developing a scientific explanation to support it. Femininity became a disease in and of itself. Menstruation was regarded as a regularly recurring illness, with pregnancy and childbirth considered to be pathological conditions.<sup>2</sup> Female frailty became institutionalized with the identification of a new disease that particularly affected women. Neurasthenia, a catchall term used to describe a variety of nervous disorders, reached near epidemic proportions near the end of the nineteenth century. By then the wan, wasted, sickly female had become the new aesthetic ideal, as two of the century's best known heroines, Beth of *Little Women* and Melanie of *Gone with the Wind*, vividly demonstrate.

### Women as Physicians

It is important to note that this intense concern with female health paralleled the growing dominance of men in the field of medicine. Yet cultural norms had to be adjusted to accommodate these two trends, for early in the century the forces of tradition and propriety forbade male physicians from treating women. Only gradually did such attitudes change, as physicians such as R. H. Whitfield of Alabama began to break down the barriers. Dr. Whitfield invoked both history and sociology to extol the superiority of the male physician. The female attendants who down through the ages had ministered to their sisters, Whitfield charged, had contributed nothing to science, for obvious reasons. Science demanded "peculiar mental powers, a vigorous intellect, a well-disciplined mind," sound judgment, and moral courage. "Are these found in females generally?" he queried. Answering his own question with a resounding "No!" Whitfield pointed out that "woman herself . . . is unfit . . . , generally incapable of acquiring the knowledge" needed to deal with difficult medical problems. Moreover, her weakness and delicacy would make her "sick and faint" at the sight of blood. If the medical cares of the world were placed in the hands of female attend-

ants, Whitfield concluded, science, "like the withering leaves of Autumn," would fall into oblivion.

An additional argument used to win acceptance of the male physician relied on the attitude of paternalism which characterized the white man's relationship with all subordinates. Dr. Whitfield pointed out that each sex had its prescribed sphere in which to function. Men, well-suited for the demanding world of work, could bring comfort and safety to their female patients. Being mentally and morally superior and genetically stronger, they were meant to serve as the guardians and counselors of society.<sup>5</sup> Dr. Sale's speech to the MSMA stressed the same idea. He underscored the physician's responsibility to his female patients, insisting that frail, dependent women needed the strength of a wise and trusted male doctor to lean upon.<sup>1</sup>

When these arguments were successful and the male physician became accepted, he still was forced to comply with the dictates of Victorian modesty. This meant that as a student the doctor received primarily didactic instruction in obstetrics and gynecology, with practical experience limited to the use of a manikin. Once in practice the physician was advised to avoid indecent ocular inspection of his female patients at all costs and to handle every stage of examination, treatment, including delivery, sight unseen.<sup>6</sup> Even the American Medical Association condemned the exposure of a woman as being unnecessary. One widely circulated medical textbook contained an illustration of the proper way for a physician to conduct an examination. The doctor is kneeling in front of a fully dressed woman, who is standing. His eyes averted to avoid an improper glimpse of his subject, he reaches under her skirts, relying on "The Touch" alone.<sup>7</sup>

Understandably, the introduction of the vaginal speculum met with considerable resistance in this milieu. Some physicians feared that this instrument would be especially harmful to young women, who would be debauched by its use. Even those who recognized the benefits of the speculum understood the reticence of both women and their physicians to use it. Mississippi Dr. H. J. Holmes regretted that "the disagreeable nature of the investigation and the natural repugnance of both physician and patient" impeded acceptance of the instrument, for correct diagnosis of an abnormality, he believed, was impossible without the benefit of sight.<sup>4</sup>

The somewhat enlightened Dr. Holmes, who operated an infirmary for ladies at Spring Ridge outside of Jackson at mid-century, demonstrates the curious mingling of progressive ideas, archaic beliefs, and cultural biases that characterized

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*"Throughout the nineteenth century women were categorized separately in almost every dimension of life — work, economics, politics, education, the law. Medicine and health care were no exception."*

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nineteenth century medical care for women. Holmes was surely correct in suggesting that a doctor needed to see what he was doing. But his records of the dozens of patients he treated for a variety of female complaints illustrate how heavily his social attitudes shaped his medical judgment. Adhering to the standard belief that the reproductive organs were central to the female system, for instance, he held that anything which acted unfavorably upon the general health could cause trouble in the uterus. "Its peculiar situation in the body, its dependent condition," and such natural shocks as sex and parturition, account for its being frequently the seat of morbid action," he explained. Such diverse maladies as cold extremities, a burning sensation in the head, even hysteria were all related to uterine disorders.<sup>4</sup>

The causes of these disorders were as varied as the symptoms, according to Dr. Holmes. In an era which subtly frowned upon sexual relations even within marriage, he found that an "excess in venery" or "too great an indulgence" could cause severe trouble. In addition, since women were inherently weak and unstable, Holmes believed that "engorgement of the uterus" and other dysfunctions could be produced by "violent moral emotion." He blamed problems ranging from leukorrhea to dysmenorrhea to "general debility and feebleness" on mistreatment of the female organs. If a woman "got her feet wet" or became chilled and damp or rode horseback during her menstrual period, she might suffer years of physical retribution.<sup>4</sup>

Holmes boasted of his success in restoring health and happiness to women who sought his treatment. Considering his tactics, this is indeed a remarkable claim. A true nineteenth century man, Holmes employed bleeding and purging, the mainstays of "heroic medicine." Bleeding included not only drawing up to a pint of blood from the patient's arm but also applying leeches — usually six — to the uterus every day for a month. A douche of iodine and water, cauterization with silver nitrate, blisters raised on the affected area, and a "brisk cathartic" might also be used. Hot tea and brandy were the finishing touch.<sup>4</sup>

Less dramatic than Dr. Holmes' methods, but of

equally dubious benefit, were other standard treatments for female complaints. Operating in a completely unregulated market, physicians such as Dr. T. G. Bracking of Jackson could advertise their ability to "positively cure any case of female disease," even one that had kept a patient bedridden for fifteen years.<sup>8</sup> Medical treatment might include simple intervaginal devices, such as suppositories and sponges, or perhaps a complicated uterine supporter, or pessary, which was attached to an elaborate leather and brass body brace. Or, if he relied on medication, the doctor might prescribe any of a number of tonics designed to treat all forms of female complaints, including sallow complexion and "early decay."<sup>9</sup> More dangerous were the addictive drugs, which came to be a serious problem among women in the postwar South. On into the twentieth century paregoric was used and abused "most grievously" in Mississippi.<sup>10</sup> William Alexander Percy, in his classic *Lanterns on the Levee*, recalls a great aunt who, having seen "war and poverty and reconstruction" and death, "took her grain of morphine every day."<sup>11</sup>

### Scientific Progress

A positive effect that derived from the century's obsession with female health was the substantial body of literature that was produced and the significant amount of experimentation that took place. To be sure a great deal of this was misdirected, but important progress was made in some areas. At mid-century, for instance, Dr. J. Marion Simms of Alabama, through morally questionable but technically skillful surgery on slave women, developed a procedure to heal the fistulas which sometimes resulted from complicated labor and delivery.<sup>12</sup> Dr. Samuel Cartwright of Natchez, the first president of the MSMA, reported successfully treating a large ovarian tumor through catheterization.<sup>13</sup> With developments in asepsis, anesthesia, and pathology, surgery became so common that by the end of the century doctors were frequently — no doubt too frequently — counseling hysterectomy or ovariotomy as the standard treatment for female complaints, psychological as well as physical.

This progress in scientific knowledge and the male monopoly of such knowledge led to the gradual displacement of the traditional midwife. Yet ironically this trend initially increased, rather than decreased, the maternal — infant mortality rate. To prove the benefits of their superior training, M.D.'s tended to intervene in birth more often than did the midwife with such practices as bloodletting, which was believed to accelerate labor, and drugs, includ-

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*"Any woman who dared to challenge her destiny or expand her sphere did so at grave risk. Social critics warned that such challenges, through business activity or political participation, would lead to the collapse of the family and ultimately of the whole social order. Physicians warned that inappropriate mental, moral, or social behavior would cause the female system to retaliate with disease of mind or body."*

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ing opium and laudanum.<sup>6</sup> Dr. W. H. Banks of Mississippi, for instance, reported administering the cathartic calomel, which is a chloride of mercury, to parturient women.<sup>14</sup> Improper use of instruments, especially the forceps, sometimes produced dangerous lacerations in the mother and damage to the child. In addition, with no real understanding of the need for clean hands and equipment, a physician who had attended other patients often brought with him to delivery a variety of communicable diseases, especially puerperal fever. This continued to be a major focus of concern and the leading cause of maternal mortality until the twentieth century.<sup>6</sup>

For those on the fringes of society, of course, especially the poor, rural, and black in Mississippi, the age-old tradition of midwifery continued well into the twentieth century. As late as 1935 over half of all Mississippi women were not attended by a physician at delivery.<sup>15</sup> Many practicing midwives had, through years of experience, gained high levels of competency in handling routine cases and continued to provide an important female network of support for pregnant women. However, others carried with them archaic beliefs not far removed from the Middle Ages. One Mississippi doctor records being called to assist in a delivery in which the attending midwife, confounded by a delayed placenta, had placed a pan of burning feathers under a patient's bent knees and then covered her legs with a quilt. "She got tired foolin' with that afterbirth and was going to smoke it out."<sup>16</sup>

Irrespective of who was present at delivery, the reality that belied the ideal of sainted motherhood was that many women lived in constant dread of the repeated pregnancies which seemed to be their lot in life, and not without cause. Death was always a very real possibility, especially in Mississippi. Moreover, the pain of childbirth was far from pleasant. The introduction of anesthesia, primarily ether or chloroform, in the delivery room around mid-century was initially hailed as a godsend by doctors and patients. Yet even this could cause serious problems when it

was improperly administered, as it frequently was in the early years.<sup>6</sup> Aside from the dangers and pain of childbirth, the burdens of a large family were heavy. Consequently many nineteenth century women took matters into their own hands.

A rise in the incidence of abortion indicates a determination on the part of many married women to limit the size of their families. Less dramatic but more widespread birth control practices were the natural ones, such as the rhythm method. These, however, were inherently unreliable since even physicians misunderstood the fertile period of the female cycle.<sup>17</sup> The artificial methods which became increasingly popular as the century progressed were frequently condemned by both the medical community and the general public. In 1878 the MSMA denounced those "unscrupulous" doctors who encouraged the "avoidance of maternity," a practice the medical association condemned because it retarded population growth in the state.<sup>18</sup> Others argued that all forms of contraception were "a curse to the good health and the morals of both parties."<sup>17</sup> Acting on this belief, the guardians of American morality undertook a successful campaign to outlaw the sale and distribution of birth control devices. Mississippi reinforced this with a law that stayed on the books through World War II. The state imposed a fine and/or a jail sentence on anyone who manufactured, sold, advertised, or possessed any contraceptive instruments or medications.<sup>19</sup>

One final point should be noted regarding women and medicine in nineteenth century Mississippi. Since the professionalization of women's medicine was a major theme throughout the century, and since the profession was overwhelmingly dominated by men, the means and ends of women's health care were formulated by men. Yet, ironically, there were probably more women than men engaged in health care. It is just that they played less visible and vocal roles. The lingering presence of midwives was one obvious example. Even more significant was the role played by the wife and mother, whose continual task it was to care for her own health as well as that of her family. Yet practice on this level was completely compatible with the prevailing value system. For women to nurse their families was a natural exten-

sion of their duties as wives and mothers. By the same token, for them to nurse the public during the crisis of war or epidemic was a natural extension of their role as comforter.

There is, of course, an irreconcilable conflict in this situation. Viewed as inherently weak and sickly, women were considered too fragile to venture into the wider world and were pressured to entrust their own health to a superior male physician. Placed at the center of the home, women were required to be strong enough to produce abundant offspring and then bear the heavy responsibility which large families and domestic duties entailed. Nineteenth century Mississippi had no trouble in reconciling these two contradictory images. Neither did the medical community, which melded science with sociology to define a paradoxical but powerful feminine ideal.



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Journal MSMA policy prohibits publication of more than ten references. For a complete bibliography, please contact the author.

117th Annual Session  
May 15-19, 1985  
Biloxi, MS



## The President Speaking

### Development of PROs

**Ellis M. Moffitt, M.D.  
Jackson, Mississippi**

In Doctor Whit Johnson's presidential address to the House of Delegates at its annual meeting in May 1984, he recommended that the House approve the State Medical Association's establishing some type of alternate health care delivery system.

The House of Delegates acted positively on the suggestion. A committee was appointed, consisting of Doctors Whitman Johnson, Lamar Weems and myself. We have reviewed a lot of material involving establishment of alternate health care delivery systems. It is the recommendation of the committee that MSMA act in an advisory role to those physicians who anticipate forming their own PPO, rather than have the association develop one. There is considerable expense involved in the establishment of any health care delivery system, and funds are not currently budgeted by MSMA for this purpose. Another reason was the real possibility of alienating a considerable number of our members, since all members could not be participants in the PPO. I think the membership needs to be better educated in the operation of a PPO before we go any further.

The next few issues of the president's page will deal with discussions regarding PPOs.

There are no operational PPOs in the state at the present time. There are several areas in which the business community is interested in establishing one. Health care brokers are trying very hard to sell this to business as a means of controlling health care costs.

There are more than 300 PPOs in various stages of development in the nation today, and the number is increasing. California has 45. Thirty-four percent are physician-run; 16% are hospital-run; and 11% are joint ventures between hospital and physician. Practically every Blue Cross in the country has one or is about to establish one. Mississippi is no exception.

At a recent conference on PPOs sponsored by the U. S. Chamber of Commerce in Washington, many business leaders expressed the opinion that PPOs offer the best hope of reducing their health costs. The time to reduce these costs is now, employers were told. Three reasons were given for this attitude: (1) the doctor surplus; (2) increased public concern about rising costs; and (3) the businesses own clout as purchasers of health care. Workshop

*(Continued on page 16)*

## EDITORIALS

JOURNAL OF THE  
MISSISSIPPI STATE  
MEDICAL ASSOCIATION  
VOLUME XXVI, NUMBER 1  
JANUARY 1985

### Health Services Reorganization Bill Requires Monitoring

It is that time of year again, and I am not referring to the joyous holidays of Christmas and New Year's. Now is the time for prefiling bills for introduction into the upcoming session of the Mississippi Legislature.

One such proposal, the Health Services Reorganization Act, was prefiled early and, in fact, committee hearings have already taken place regarding this legislation. The stated objectives of the bill are to consolidate many duplicated functions and thereby increase efficiency while decreasing costs. The original bill creates the Mississippi Department of Health Care Finance, establishes several new divisions within the Mississippi Department of Health, abolishes some boards, and reconstitutes other boards and commissions. Changes in the original bill have already occurred in committee, and I am sure others will take place.

Legislative measures of this magnitude have a way of undergoing a major metamorphosis in committee hearings and often the final product in no way resembles the original draft.

While in committee this bill should receive careful scrutiny by the medical community and the lay public. Hopefully, a major interest by both groups will be generated and significant input made to the appropriate committees. This bill, along with many others, will be monitored by the MSMA staff and the Legislative Committee. You should not, however, rely entirely upon this input. You should familiarize

yourself with the details of this legislation and follow its progress through various committee actions. Most importantly, you should respond to your local representative as well as the MSMA staff so that your interest may be known and appropriately represented. Failure to become active and involved may lead to significant changes detrimental to your practice.

MYRON W. LOCKEY, M.D.  
Editor

### Medico-Legal Brief

#### Physician-Hospital Dispute Over Staff Privileges

A recent decision of the Missouri Court of Appeals indicates the importance of conducting a hearing whenever a dispute arises concerning the suspension or termination of a physician's hospital staff privileges.

The physician in question received a letter from the hospital board of trustees informing him that due to an incident occurring on February 9, 1982, his medical staff privileges for admitting patients to Bates County Memorial Hospital were suspended for a period of 21 days. The physician filed suit for an injunction. At the court hearing the hospital offered testimony from two nurses, the chairman of the board, and the hospital administrator. The physician offered testimony from the patient and three physicians in addition to his own testimony. The Court granted an injunction and the hospital appealed.

The record reveals that the hospital board based its decision upon an investigative report by the hospital attorney, the progress record of the patient, affidavits from nurses, and a report of the hospital credentials committee. Based on these documents, the hos-

JOIN TODAY



## MEDICO-LEGAL BRIEF/Continued

pital board concluded that the physician had "sur-reptitiously administered" a sedative, in the form of a rectal suppository, in an effort and for the purpose of performing a diagnostic test upon the patient. Allegedly the patient had refused to undergo the test. The hospital board also concluded that the patient, although 87 years of age, was competent and fully aware of her surroundings and the nature and importance of the diagnostic test. However, the hospital board did not conduct a hearing. The court characterized the action of the hospital board as an uncontested case. In other words, the physician had not had an opportunity to provide any evidence to the hospital board.

On appeal, the hospital contended that the trial court should have limited its review to the evidence before the hospital board, and thereby determine if the hospital board exercised its discretion lawfully. However, the Court of Appeals held that because the hospital board did not conduct a hearing, the trial court properly heard evidence on the merits of the case and properly based its decision on its assessment of the facts and the credibility of the witnesses. The court affirmed the trial court's entry of an injunction against the hospital. (*Long v. Bates County Memorial Hospital*, 667 S.W.2d 419, Mo. Ct. of App., Dec. 27, 1983; sustained March 20, 1984)

### AMA Office of General Counsel Comments

In this case, the bylaws did not require a hearing. The hospital board acted to penalize the physician without giving him an opportunity to provide the facts in support of his conduct. If the board had the benefit of such facts, perhaps costly litigation could have been avoided.

When medical staff bylaws are being drafted or revised, it is a good idea to be sure that the hearing provisions are clear, complete, and up to date. If a physician has the opportunity to present evidence that explains or supports his actions, generally the Court is limited to determining if there was evidence to support the hospital's decision. The Court generally will not substitute its judgment for the judgment of the hospital board. It will only be concerned with determining that a fair procedure was utilized, that such procedure permitted reasonable access to all of the pertinent information, and that the final decision was based upon evidence obtained through that process, supporting the final decision. Both hospital and physician are protected by a hearing requirement in the bylaws.

## The President Speaking

(Continued from page 14)

speakers gave a polite nod to quality of care but made it quite clear that what they expect from PPOs is hard-nosed, bottom line oriented medical service. The PPO that does not deliver service will not survive.

A PPO in its simplest form is a group of fee-for-service physicians and/or hospitals that contract with a third party payor to provide services at previously determined rates for the prospect of increased patient volume and prompt payment of services. It is not an insurance plan, but an insurance company may be a PPO or one of the parties. It is a set of contractual agreements between payors, providers and consumers.

A PPO differs from an HMO or IPA in several ways:

(1) A PPO is made up of a group of physicians, hospital and medical staff that agree to provide services on a fee-for-service basis to some defined patient population at or below usual and customary rates. Employers pay only for those services their employees use. In contrast, an HMO or IPA charge a capitation fee that covers all services rendered.

(2) PPOs allow more freedom of choice in their selection of providers than the HMO or IPA, although this will depend on the size of the PPO. The patient still remains free to use a non-PPO provider even though at a reduced reimbursement.

(3) There is very little if any financial risk for providers, since the PPO is not financed through a prepaid mechanism. However, increased thought is being given to incorporating risk as a part of the PPO concept, such as requiring payment of annual dues in order to belong to the PPO or reserving part of the reimbursement.

PPOs can be organized in several ways: physician alone, hospital alone, or a combination of physician and hospital, third party payors, health care consultants or brokers. Businesses such as Prudential Life, Sears, and many other large companies are interested in this.

### 117th Annual Session

May 15-19, 1985  
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Mark Your Calendars Now

## MEDICAL ORGANIZATION

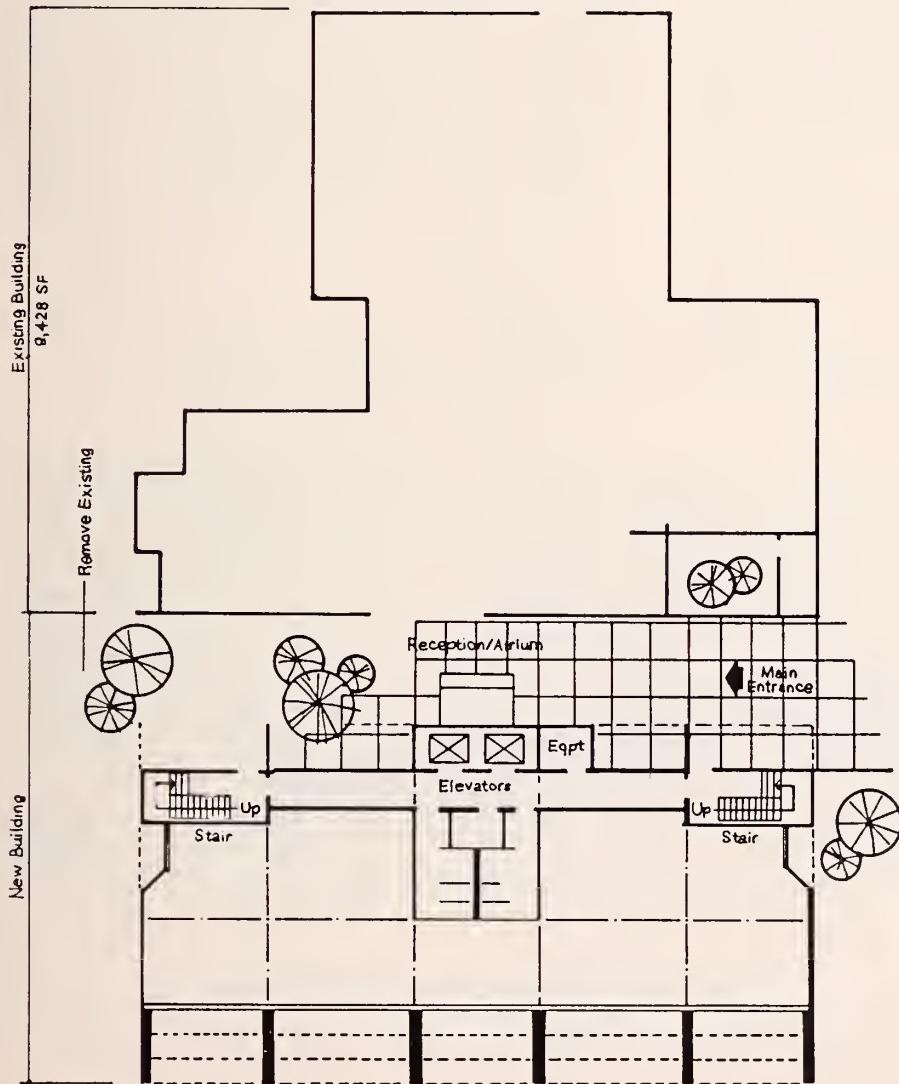
# Planning Underway for MSMA's New Home: Groundbreaking Scheduled for April

Designers are at work on final plans for MSMA's new home. It won't exactly be "new," but the association's headquarters building on Riverside Drive will undergo such an extensive expansion and remodeling that it will appear to be a completely new structure.

Furthermore, it will function as a full office complex, housing not only the expanding MSMA and

MSMA Auxiliary operations, but also the Mississippi Foundation for Medical Care, currently located in offices on North West Street, and the Medical Assurance Company of Mississippi.

Preliminary plans drawn up by the architectural firm of Cooke-Douglass-Farr, Ltd., call for a three-story structure to be erected just north of the existing building. Plans also include reorientation of the



*Preliminary plans call for a three-story structure to be erected just north of the existing headquarters building. Plans also include reorientation of the building's main entrance, with the new atrium-style entry facing west.*

## **MSMA'S NEW HOME/Continued**

building's main entrance, with the new atrium-style entry facing west. Additionally, the existing building will be remodeled.

When the project is finished, the complex will have a total square footage of 24,428, or 15,000 more than is now available. Present offstreet parking will be more than tripled.

The \$1,797,000 building program was recommended by the MSMA Board of Trustees and authorized by the House of Delegates at the 116th Annual Session in May 1984.

Financing for the building program's cost will be provided through a syndicated limited partnership, with MSMA as the general partner. Limited partnerships will be restricted to MSMA members who meet criteria established by the Board of Trustees.

When the Board of Trustees recommendation was presented to the House of Delegates last year, it was noted that the existing building is in good condition with the exception of an outdated mechanical system. However, as the association and the auxiliary have grown and as services to the membership and the public have been added, the headquarters building has been found inadequate.

The original building, situated on a 1.03 acre lot near the University Medical Center, was constructed in 1956. A major addition which more than doubled the size of the structure (to 9,428 square feet) was completed in 1970.

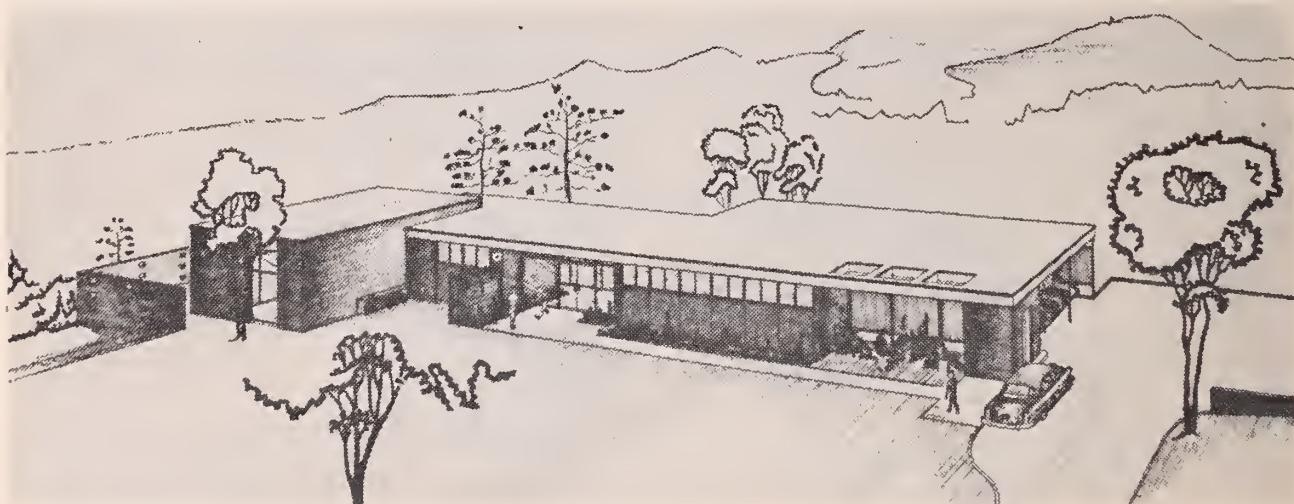
Since that time, a number of programs have been added to MSMA operations, among them the MSMA Benefit Plan and Trust, CommuniCare,

MSMA Auxiliary office, the GTE Telenet System, and MSMA Services, Inc. As staff additions have been made for the administration of these programs, all available storage and file rooms have been converted to offices. Currently, the library/conference room has been pressed into multiple use, with a full-time staff person utilizing it as office space. Similarly, conversion of ancillary space has been necessary for the growing Medial Assurance Company of Mississippi, which has leased space in the building since the company began operations in 1976.

Space problems extend beyond the need for offices, however. The building's main conference room, part of the original structure, no longer can accommodate meetings of the Board of Trustees and officers, a situation which is particularly acute when there are guests.

When the construction project is completed, the MSMA and MSMA Auxiliary, the Medical Assurance Company of Mississippi, and the Mississippi Foundation for Medical Care will occupy 14,688 square feet of office space. Shared facilities, including a large conference room, a medium conference room/library and a lounge/kitchen area, will total 4,040 square feet. General services and circulation area will account for 5,700 square feet, bringing the total to 24,428.

Groundbreaking ceremonies are scheduled for April. Estimated time for completion of the project is 18 to 23 months, including initial design and bid phases. Once construction is underway, it is expected to take just over a year.



*The original MSMA headquarters building was opened in 1956. Dr. S. Lamar Bailey of Kosciusko, 1955-56 MSMA president, delivered the dedication address, and Dr. Guy T. Vise of Meridian, chairman of the Board of Trustees, presided over the ceremonies. Theme of the dedication was the centennial celebration of the association's founding in 1856. When the current construction project to expand the headquarters building is finished, the complex will have 24,428 square feet, making it six times larger than the original building.*

## Medical History Exhibit Officially Opened

An old-time country doctor's office was officially opened November 25 at the Mississippi Agriculture and Forestry Museum in Jackson.

The MSMA provided funding and technical assistance for the exhibit, a tribute to the pioneer doctors of the state.

Dr. Ralph Brock, MSMA president-elect, represented the association at ribbon-cutting ceremonies, along with Barbara (Mrs. Ted) Blanton, MSMA Auxiliary president. Commissioner Jim Buck Ross of the Mississippi Department of Agriculture and Commerce conducted the dedication.

John E. Melvin of Canton donated the original doctor's office, which has been restored to its 1920s appearance on the museum grounds. The building was originally located in Camden, where Dr. John W. Melvin practiced medicine with his father-in-law, Dr. John M. Shelby.

Visitors to Dr. Melvin's office will see furnishings, medical equipment and



*Dr. Ralph Brock, Center, and Barbara (Mrs. Ted) Blanton, right, represented the MSMA and MSMA Auxiliary at the opening of the medical history exhibit at the Mississippi Agriculture and Forestry Museum in Jackson. With them, from left, are: Forrest Galey, museum historian; Commissioner Jim Buck Ross; and John E. Melvin of Canton, who donated the original doctor's office.*

medications used during that period of time. Most of the artifacts were donated by Mississippi physicians and their families.

The doctor's office is situated in Small Town, Mississippi, a "living history" village which features a working farm, a cotton gin, a Masonic lodge, a general store, and other buildings typical of a rural community of the time.

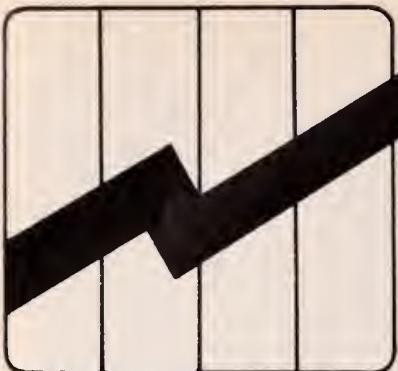
The medical history display was endorsed by the MSMA Board of Trustees as a special project in 1981, the association's 125th anniversary year.

## Special Thanks

The country doctor's office at the Mississippi Agriculture and Forestry Museum was made possible by the generous donations of Mississippi physicians. Special acknowledgement is made to the following contributors:

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## **UMC Appoints Two To Medical School Faculty**

The University of Mississippi Medical Center has added two to the medical school faculty for the current academic session.

The appointments were announced by Dr. Norman C. Nelson, vice chancellor for health affairs, following approval by the Board of Trustees of State Institutions of Higher Learning.

School of Medicine appointments included Dr. Ronald J. Kendig, assistant professor of surgery (orthopedics), and Dr. Clara A. Myers, assistant professor of medicine.

Dr. Ronald J. Kendig holds the B.S. from Cornell University. He earned the M.D. at the University of Maryland Medical School and did his residency in surgery and orthopedics at Union Memorial Hospital from 1979-1982. Prior to his Medical Center appointment, he was instructor and acting chief of pediatric orthopedic service at the University of California Davis School of Medicine.

Dr. Clara A. Myers earned the B.A. in 1970 and the M.A. in 1971 from Northwestern State University. She completed pre-medical studies at Millsaps College in 1975, and earned the M.D. at the University of Mississippi Medical Center in 1979, where she did her residency.

## **UMC Will Sponsor Nuclear Medicine Update**

The University of Mississippi Medical Center Nuclear Medicine Update will be presented during the Eighth Annual Meeting of the Mississippi Society of Nuclear Medicine on February 2.

The program, designed to present the latest and most comprehensive information on nuclear medicine imaging, will emphasize new techniques and recent advancements in established procedures.

Credit for the course will be awarded as eight hours in Category I of the Physician's Recognition Award of the American Medical Association and .8 continuing education units.

For information or a brochure, contact the University of Mississippi Medical Center, Continuing Health Professional Education, 2500 North State Street, Jackson, Mississippi 39216-4505, or call (601) 987-4914.

## **Renal Update 1984 Scheduled for Next Month**

Renal Update 1984, sponsored by the University of Mississippi School of Medicine, will be held on February 3, at the Sheraton Regency Convention Center in Jackson.

Information on the prevention and treatment of renal failure and the clinical management of nephrologic problems will be discussed.

The program is co-sponsored by the Kidney Foundation of Mississippi, Kidney Care, Inc., the Mississippi Nephrologic Society and the Mississippi Urologic Society. It meets the criteria for 5.5 credit hours in Category I of the Physicians' Recognition Award of the American Medical Association.

For information or a brochure, contact continuing Health Professional Education at the University Medical Center.

## **POSTGRADUATE CALENDAR**

*Feb. 2*

NUCLEAR MEDICINE UPDATE  
University Medical Center, Jackson

*Feb. 16*

INTERNAL MEDICINE UPDATE  
Holiday Inn Southwest, Jackson

*March 14-16*

SURGICAL FORUM XII  
Holiday Inn Downtown, Jackson

*March 1-22*

NEUROLOGY SPRING SYMPOSIUM  
Sheraton Regency, Jackson

*March 23*

SPRING SONIC SYMPOSIUM  
University Medical Center, Jackson

*April 24-27*

FAMILY PRACTICE UPDATE  
Sheraton Regency, Jackson

For registration information and a brochure, contact Continuing Education at the University of Mississippi Medical Center, 2500 North State Street, Jackson, MS 39216-4505, or call (601) 987-4914.



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## NEW MEMBERS

BALASKI, JAMES PHILLIP, Heidelberg. Born Picayune, MS, Nov. 28, 1947; M.D., University of Mississippi School of Medicine, Jackson, 1973; interned and family medicine residency, University Medical Center, Jackson, 1973-76; elected by South Mississippi Medical Society.

COBB, JAMES R., Marks. Born Little Rock, AR, Dec. 20, 1932; M.D., University of Tennessee Center for Health Sciences, Memphis, 1963; interned St. Mary's Hospital, Kansas City, MO, one year; elected by Clarksdale and Six Counties Medical Society.

COLE, FREDERICK L., Tunica. Born New Orleans, June 19, 1943; M.D., University of Mississippi School of Medicine, Jackson, 1973; interned Baptist Hospital, Memphis, one year; diagnostic radiology residency, same, 1974-77; internal medicine residency, same, 1979-81; elected by Clarksdale and Six Counties Medical Society.

CRAVEN, WILLIAM F., Oxford. Born Murphy, NC, Nov. 1, 1956; M.D., University of Mississippi School of Medicine, Jackson, 1981; family medicine residency, Druid City Hospital, Tuscaloosa, AL, 1981-84; elected by North Mississippi Medical Society.

DALE, WARREN B., Sr., Lumberton. Born Centreville, MS, Aug. 3, 1925; M.D., University of Mississippi School of Medicine, Jackson, 1955; interned University Medical Center, Jackson, one year; elected by South Mississippi Medical Society.

DAVISON, ROBERT DALE, McComb. Born Alexandria, LA, Jan. 18, 1942; M.D., University of Alabama School of Medicine, Birmingham, 1968; interned Ochsner Medical Foundation, New Orleans, one year; radiology residency, University Hospitals, Birmingham, AL, 1971-74; elected by South Central Medical Society.

EATON, JAMES M., Tupelo. Born Booneville, MS, May 6, 1952; M.D., University of Mississippi School of Medicine, Jackson, 1977; interned and anesthesiology residency, LSU Medical Center, Shreveport, 1977-80; elected by Northeast Mississippi Medical Society.

EL NACHEF, MOHAMED W., Clarksdale. Born Maaretmesrin, Syria, Jan. 25, 1953; M.D., Aleppo University School of Medicine, Aleppo, Syria, 1976; pathology residency, Canton, OH; internal

medicine residency, Medical Center, Cleveland, OH 1979-82; nephrology residency, Cleveland Methodist Hospital, Cleveland, OH, 1982-84; elected by Clarksdale and Six Counties Medical Society.

ERLY, WILLIAM K., Dekalb. Born Red Bank, NJ, Nov. 6, 1956; M.D., Columbia University College of Physicians and Surgeons, New York, NY, 1983; one year family medicine training, Denver, CO, 1983-84; elected by East Mississippi Medical Society.

FYKE, FRAZIER EARL, III, Jackson. Born Jackson, MS, Dec. 27, 1947; M.D., Mayo Medical School, Rochester, MN, 1978; interned, internal medicine residency, and cardiology residency, Mayo Clinic, Rochester, MN, 1978-84; elected by Central Medical Society.

GIBSON, W. HARRY, Meridian. Born Meridian, MS, Sept. 1, 1944; M.D., University of Mississippi School of Medicine, Jackson, 1981; interned one year, University Medical Center, Jackson, MS; anesthesiology residency, University of Alabama, Birmingham, 1982-84; elected by East Mississippi Medical Society.

GRAFTON, J. KEN, Jr., Laurel. Born Philadelphia, MS, April 20, 1953; M.D., University of Mississippi School of Medicine, Jackson, 1981; family medicine residency, University of Alabama, Northeast Alabama Regional Medical Center, Anniston, 1981-84; elected by South Mississippi Medical Society.

GREENHAW, DAVID N., Booneville. Born Wheeler, MS, Dec. 18, 1947; M.D., University of Mississippi School of Medicine, Jackson, 1981; interned and internal medicine residency, Baptist Memorial Hospital, Memphis, 1981-84; elected by Northeast Mississippi Medical Society.

JORDEN, ROBERT CHARLES, Jackson. Born Massillon, OH, Sept. 30, 1947; M.D., Ohio State University College of Medicine, Columbus, OH, 1973; interned New York University Hospital, New York, NY, one year; surgery residency, same, 1974-76; emergency medicine residency, Denver General Hospital, Denver, CO, 1978-80; elected by Central Medical Society.

JOHNSON, WARREN W., Jackson. Born Ackerman, MS, Jan. 13, 1923; M.D., University of Mississippi School of Medicine, Jackson, 1957; interned and pathology residency, University of Tennessee, Memphis, 1957-61; elected by Central Medical Society.

## NEW MEMBERS/Continued

KELLUM, ROY B., Jackson. Born Tupelo, MS, Oct. 4, 1955; M.D., University of Mississippi School of Medicine, Jackson, 1980; interned and ob-gyn residency, University Medical Center, Jackson, MS, 1980-84; elected by Central Medical Society.

LEWIS, JOHN W., JR., Sumner. Born Rosedale, MS, March 16, 1954; M.D., University of Mississippi School of Medicine, Jackson, 1981; interned and family practice residency, University of South Alabama, Mobile, 1981-84; elected by Clarksdale and Six Counties.

JOHNSON, CHARLES PATRICK, Columbia. Born Hattiesburg, MS, Feb. 15, 1949; D.O., Kansas City College of Osteopathic Medicine, Kansas City, MO, 1979; interned one year, Doctor's Hospital, Atlanta; ob-gyn residency, Erlanger Medical Center, Chattanooga, TN, 1980-83; elected by South Mississippi Medical Society.

MORRISON, DOYLE A., Jackson. Born Dublin, GA, Oct. 29, 1953; M.D., Medical College of Georgia, Augusta, 1978; interned Talmadge Memorial Hospital, Augusta, one year; urology residency, University Medical Center, Jackson, MS, 1979-83; oncology fellowship, University Tennessee, Memphis, 1983-84; elected by Central Medical Society.

O'NEAL, MICHAEL R., Shubuta. Born Hattiesburg, MS, Nov. 8, 1948; M.D., University of Mississippi School of Medicine, Jackson, 1974; interned and family medicine residency, Jackson Memorial Hospital, Univ. of Miami, FL, 1974-77; elected by East Mississippi Medical Society.

PUTNAM, THOMAS J., Booneville. Born Jackson, MS, Nov. 6, 1956; M.D., University of Mississippi School of Medicine, Jackson, 1977; interned and internal medicine residency, Baptist Memorial Hospital, Memphis, 1981-84; elected by Northeast Mississippi Medical Society.

RIDDELL, MAL S., III Grenada. Born Memphis, TN, Aug. 19, 1949; D.O., Kansas City College of Osteopathic Medicine, Kansas City, MO, 1977; interned Wright Patterson AFB, OH, one year; elected by North Central District Medical Society.

ROBERTS, DONALD L., Gulfport. Born Bude, MS, Sept. 1, 1950; M.D., University of Mississippi School of Medicine, Jackson, 1975; interned Charity Hospital, New Orleans, one year; otolaryngology residency, LSU Medical Center, New Orleans, 1976-80; elected by Coast Counties Medical Society.

ROWDEN, PHILLIP C., Natchez. Born Modesto, CA, Jan. 4, 1950; M.D. Loma Linda University School of Medicine, Loma Linda-Los Angeles, CA, 1976; interned University of California, Irvine, one year; psychiatry residency, University of Hawaii, Honolulu, 1977-79; elected by Homochitto Valley Medical Society.

SETER, STEPHEN K., Belmont. Born Iuka, MS, May 4, 1955; M.D., University of Mississippi School of Medicine, Jackson, 1981; interned and family practice residency, University of Tennessee, Jackson, 1981-84; elected by Northeast Mississippi Medical Society.

STEVENS, MARTHA L., Columbia. Born Columbia, MS, Dec. 16, 1947; M.D., University of Mississippi School of Medicine, Jackson, 1979; interned Madigan Army Medical Center, Tacoma, WA, one year; pediatric residency, same, 1980-82; elected by South Mississippi Medical Society.

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THORNTON, JAMES LEE, New Albany. Born Grenada, MS, Aug. 4, 1935; M.D., University of Mississippi School of Medicine, Jackson, 1959; interned City of Memphis Hospitals, Memphis, one year; elected by Northeast Mississippi Medical Society.

WALT, DAVID L., Cleveland. Born Marianna, FL, March 13, 1955; M.D., University of Mississippi School of Medicine, Jackson, 1980; interned Talmadge Hospital, Augusta, GA, one year; medicine residency, same, 1982-83; elected by Delta Medical Society.

WELLS, WILLIE LEE, Pittsboro. Born Waynesboro, MS, Dec. 3, 1956; M.D., University of Mississippi School of Medicine, Jackson, MS, 1981; interned and family medicine residency, University Medical Center, Jackson, 1981-84; elected by Northeast Mississippi Medical Society.

YARBROUGH, BENJAMIN O., Jackson. Born Memphis, TN, Jan. 22, 1953; M.D., University of Mississippi School of Medicine, Jackson, 1980; interned and pediatric residency, University Medical Center, Jackson, 1980-84; elected by Central Medical Society.

YOE, WILLIAM E., Amory. Born New Albany, MS, March 12, 1955; M.D., University of Mississippi School of Medicine, Jackson, 1981; interned Madison County General Hospital, Jackson, TN, one year; family medicine residency, University of Tennessee, Memphis, 1982-84; elected by Northeast Mississippi Medical Society.

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## PERSONALS

IRL T. ALEXANDER, Jr. of Corinth has been named chief of staff at Magnolia Hospital.

ORLANDO ANDY of UMC presented papers at the annual meeting of Southern Medical Association in New Orleans and at a meeting in Memphis of the Southern Electroencephalographic Society.

GENE R. BARRETT of Jackson presented a paper with MICHAEL WEAVER at the Southern Orthopaedic Society Residents Conference in New Orleans. Dr. Barrett has been approved as an investigator for a dacron synthetic knee ligament study.

WILLIAM BATES of UMC was guest lecturer at the Kansas City Ob-Gyn Society in Kansas City, Missouri, and was visiting professor at the University of Alabama Medical Center in Birmingham.

BLAIR BATSON of UMC recently was an examiner for the American Board of Pediatrics in Philadelphia, Pennsylvania.

RICHARD D. CELENTANO and M. CELESTE LAGARDE announce the opening of their office for the practice of general surgery at 912-2 Sumrall Road in Columbia.

ALTON B. COBB of Jackson received the 1984 Felix J. Underwood Award at the Mississippi Public Health Association's 47th annual meeting.

DAWSON B. CONERLY, Jr., of Hattiesburg has been named medical director of Forrest General Hospital's outpatient surgery facility.

WALLACE CONERLY of UMC was guest speaker at recent meetings of the Oxford Rotary Club and the Sardis Rotary Club.

WILLIAM CRAVEN of Oxford has been named a diplomate of the American Board of Family Practice.

KENT DARSEY of Meridian participated in a panel discussion on "living will" legislation sponsored by the Meridian League of Women Voters.

CARL EVERES of UMC made a presentation at the Family Medicine Preceptor Seminar in Oxford recently.

JAMES HUGHES of UMC taught a course on orthopedic problems and trauma in children held at Sea Island, Georgia.

MICHAEL E. JABALEY of Jackson announces the association of SUMAN K. DAS for the practice of plastic and reconstructive surgery and surgery of the hand.

JOHN KAPP of UMC presented papers at the second international Symposium on Biology of Brain Tumors in London in October and at a meeting of the American Academy of Neurological Surgery in Hot Springs, Virginia.

HERBERT LANGFORD of UMC presented papers at the American Clinical and Climatological Association meeting in Hot Springs, Virginia, at a course on current concepts in arterial hypertension in Lakeland, Florida, and at the American Heart Association Council for High Blood Pressure Research in Cleveland, Ohio.

JOHN MORRISON of UMC lectured at grand rounds at the University of Alabama Medical Center in Birmingham, presented workshops at the National Perinatal Association in Detroit, and was visiting professor at Tulane University School of Medicine.

GEORGE MOSS has been named king of the Natchez Mardi Gras.

ROBERT O'NEAL of UMC was a site visitor for the National Heart, Lung and Blood Institute in Dallas.

SANDRA RHODEN of Jackson was guest speaker at a recent meeting of the Hinds County Women's Civic Club.

PHILLIP RHODES of UMC conducted a seminar for physicians in Hattiesburg recently.

A scholarship fund has been established at Millsaps College in honor of THOMAS G. ROSS of Jackson.

GLENDA SCALLORN of Jackson conducted a panel discussion on teenage suicide at a meeting of the Grenada Junior Auxiliary.

THOMAS SINGLEY of Pascagoula has been named chief of the medical staff at Singing River Hospital.

T. K. WILLIAMS of Jackson was named president of Mississippi Thoracic Society during the society's 29th annual meeting.

JOURNAL MSMA invites your participation. Please send your letters, inquiries, and suggestions to the Editors, P.O. Box 5229, Jackson, MS 39216.

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# MEETINGS

## National and Regional

American Medical Association, Annual Meeting, June 16-20, 1985, Chicago. James H. Sammons, Executive Vice President, 535 N. Dearborn St., Chicago, IL 60610.

## State and Local

*Mississippi State Medical Association*, 117th Annual Session, May 15-19, 1985, Biloxi. Charles L. Mathews, Executive Secy., 735 Riverside Drive, P.O. Box 5229, Jackson 39216. *Mississippi Academy of Family Physicians*, Annual Meeting, June 26-29, 1985, Biloxi. Mrs. Alyce Palmore, Executive Secy., P.O. Box 12330, Jackson 39211.

*Amite-Wilkinson Counties Medical Society*, 3rd Monday, March, June, September, December. James S. Poole, Secy., The Gloster Clinic, Gloster 39638. Counties: Amite, Wilkinson.

*Central Medical Society*, 1st Tuesday, February, April, October, December, 6:30 p.m., Primos Northgate Restaurant, Jackson. Patsy Douglas, Executive Secy., B6 Medical Arts Bldg., 1151 N. State St., Jackson 39201. Counties: Hinds, Leake, Madison, Rankin, Scott, Simpson.

*Claiborne County Medical Society*, 1st Tuesday, each month, 6:00 p.m., Claiborne County Hospital, Port Gibson. D. M. Segrest, Secy., P.O. Box 147, Port Gibson 39150. County: Claiborne.

*Clarksdale and Six Counties Medical Society*, 3rd Wednesday, April, and 1st Wednesday, November, 2:00 p.m., Clarksdale. Rodney Baine, Secy., 110 Yazoo Ave., Clarksdale 38614. Counties: Coahoma, Quitman, Tallahatchie, Tunica.

*Coast Counties Medical Society*, January, May, and November. H. S. Barrett, Secy., P.O. Box 1810, Gulfport 39501. Counties: Hancock, Harrison, Stone.

*Delta Medical Society*, 2nd Wednesday, April and October. Walter H. Rose, Secy., 122 E. Baker St., Indianola 38751. Counties: Bolivar, Humphreys, Leflore, Sunflower, Washington.

*DeSoto County Medical Society*, 3rd Thursday, February and August, 1:00 p.m., Kenny's Restaurant, Hernando. Malcolm D. Baxter, Jr., Secy., Baxter Clinic, Hernando 38632. County: DeSoto.

*East Mississippi Medical Society*, 1st Tuesday, February, April, June, October, December. Charles L. Wilkinson, Secy., Mail: Ms. Jenkins, 1415 50th Ave., Meridian 39305. Counties: Clarke, Kemper, Lauderdale, Neshoba, Newton, Winston.

*Homochitto Valley Medical Society*, Meetings scheduled quarterly. Walter T. Colbert, Secy., P.O. Box 1488, Natchez 39120. Counties: Adams, Jefferson.

*North Central District Medical Society*, 3rd Wednesday, March, June, September, January. Rebecca Hodges, Box 329, Kilmichael 39747. Counties: Attala, Carroll, Choctaw, Grenada, Holmes, Montgomery, Webster.

*Northeast Mississippi Medical Society*, 1st Thursday, March, June, September, December. Roger L. Lowery, Secy., 618 Pegram Dr., Tupelo 38801. Counties: Alcorn, Calhoun, Chickasaw, Itawamba, Lee, Monroe, Pontotoc, Prentiss, Tishomingo, Union.

*North Mississippi Medical Society*, 1st Thursday, April, September, December. Cherie Friedman, Secy., 424 South 5th, Oxford 38655. Counties: Benton, Lafayette, Marshall, Panola, Tate, Tippah, Yalobusha.

*Pearl River County Medical Society*, 2nd Monday, March, June, September, December. J. C. Griffing, Secy., Crosby Memorial Hospital, Picayune 39466. County: Pearl River.

*Prairie Medical Society*, 2nd Tuesday, March, June, September, December. Steve Parvin, Secy., 106 Strange Rd., Starkville 39759. Counties: Clay, Oktibbeha, Lowndes, Noxubee.

*Singing River Medical Society*, 3rd Monday, January, March, June, September, December. S. B. Fineberg, Secy., 2204 Old Mobile Hwy., Pascagoula 39567. County: Jackson.

*South Central Mississippi Medical Society*, 2nd Tuesday, March, June, September, December. Julian T. Janes, Secy., 304 Clark, McComb 39648. Counties: Copiah, Franklin, Lawrence, Lincoln, Pike, Walthall.

*South Mississippi Medical Society*, 2nd Thursday, March, June, September, December. Dan Jones, Secy., P.O. Box 2756, Laurel 39440. Counties: Covington, Forrest, George, Greene, Jasper, Jefferson Davis, Jones, Lamar, Marion, Perry, Smith, Wayne.

*West Mississippi Medical Society*, 2nd Tuesday, January, March, May, September, October, November, 6:30 p.m., Maxwell's Restaurant, Vicksburg. Martin E. Hinman, Secy., The Street Clinic, Vicksburg 39180. Counties: Issaquena, Sharkey, Warren.

## Mississippi Institutions and Organizations Accredited for Continuing Medical Education

The following Mississippi institutions and medical organizations have been accredited in accordance with the "Essentials for Accreditation of Institutions and Organizations Offering Continuing Medical Education Programs" of the Liaison Committee on Continuing Medical Education. Information concerning CME programs for physicians offered by these accredited sources may be obtained by writing the Director, Continuing Medical Education, at the individual institution or organization.

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**North Mississippi Medical Center**  
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**Mississippi Chapter**  
American College of Surgeons  
Box 5229  
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Pascagoula, MS 39567

**Jefferson Davis Memorial Hospital**  
Box 1488  
Natchez, MS 39120

**Magnolia Hospital**  
Alcorn Drive  
Corinth, MS 38834

**King's Daughter Hospital**  
Box 948  
Brookhaven, MS 39601

**Greenwood Leflore Hospital**  
1508 Leflore Avenue  
Greenwood, MS 38930

**Riverside Hospital**  
Lakeland Drive  
Jackson, MS 39208

**South Washington County Hospital**  
Drawer 398  
Hollandale, MS 38748

**Biloxi Regional Medical Center**  
1559 Lafayette St.  
Biloxi, MS 39533

**Gulfport Memorial Hospital**  
4500 13th Street  
Gulfport, MS 39501

**Mississippi Radiological Society**  
316 Medical Arts Building  
Jackson, MS 39201

**Oxford-Lafayette County Hospital**  
P.O. Box 946  
Oxford, MS 38655

**Delta Medical Center**  
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Greenville, MS 38701

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Physicians (especially specialists such as ophthalmologists, pediatricians, orthopedists, neurologists, etc.) interested in performing consultative evaluations (according to Social Security guidelines) should contact one of the following Medical Relations Officers: Henry Klar (Ext. 2276) or Martina Mayfield (Ext. 2227).

The DDS now has a program available for medical society meetings and hospital staff meetings. The purpose of this program is to explain how the disability determination process works, its historical background, its basis in legality and its documentation requirements. Any group interested in this presentation should contact John S. Barr, M.D., Ext. 2277.

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# IN CONCLUSION

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Mammography is the most effective way to detect nonpalpable breast cancers, according to the American Medical Association's Council on Scientific Affairs. The Council's report, published in the December 7 JAMA, suggests that women should have their first mammographic examination between the ages of 35 and 40. During their 40s women should have the examination at one- to two-year intervals, and in their 50s the exam should be annual. The report notes projections indicate 7,500 annual cancer deaths could be prevented.

---

The rash associated with Rocky Mountain spotted fever usually appears between the second and fifth day of the illness, but abdominal symptoms often appear earlier and should be recognized, says an article in the December Archives of Pathology and Laboratory Medicine. Autopsies of 28 fatal cases showed that 91% had rickettsial lesions in abdominal tissues. In these cases severe abdominal symptoms had been noted in 71% of the patients, but were not associated with the spotted fever.

---

The AMA Judicial Council states that a physician has an obligation to tell a patient if he has an ownership interest in a health care facility where the patient will be treated, and the patient should be free to seek medical services elsewhere. The Council also advises against risk-sharing arrangements between hospitals and medical staffs under DRG reimbursement and states that physicians should not be penalized if their care of a patient exceeds the DRG allowance.

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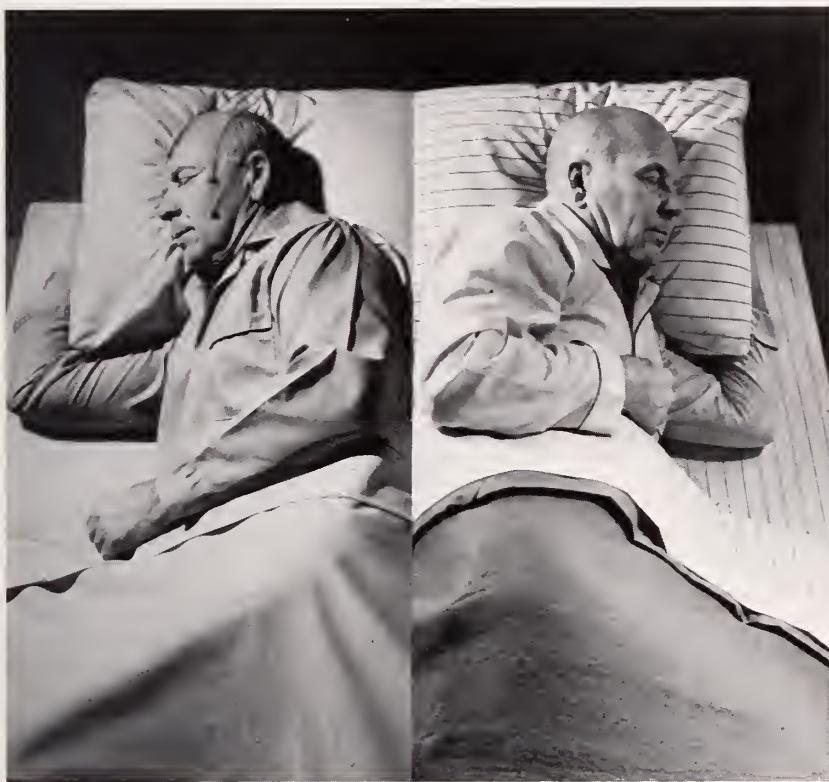
Chewing perforated nifedipine capsules is a safe and effective way to lower blood pressure promptly without parenteral medications, says an article in the December issue of Archives of Internal Medicine. Within 13 minutes, blood pressures of 42 emergency-room patients dropped from an average of 205 over 127 to 158 over 88. "There were no side effects and no hypotension even among the 38 patients who had recently received other medications," the report states.

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Using experimental animal models, researchers demonstrated significant decrease in herpetic stromal keratitis by applying a 1 percent solution of cyclosporine to the affected eye. Since such infections now are treated with corticosteroids, which may be associated with several corneal complications, the authors of the article in the December Archives of Ophthalmology say their research opens new possibilities for the treatment of the condition.

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- More total sleep time<sup>1-6</sup>
- Undiminished efficacy for at least 28 consecutive nights<sup>2-4</sup>
- Patients usually awake rested and refreshed<sup>7-9</sup>
- Avoids causing early awakenings or rebound insomnia after discontinuation of therapy<sup>2,5,10-12</sup>

Caution patients about driving, operating hazardous machinery or drinking alcohol during therapy. Limit dose to 15 mg in elderly or debilitated patients. Contraindicated during pregnancy.

## DALMANE®

flurazepam HCl/Roche

**References:** 1. Kales J et al: *Clin Pharmacol Ther* 12:691-697, Jul-Aug 1971. 2. Kales A et al: *Clin Pharmacol Ther* 18:356-363, Sep 1975. 3. Kales A et al: *Clin Pharmacol Ther* 19:576-583, May 1976. 4. Kales A et al: *Clin Pharmacol Ther* 32:781-788, Dec 1982. 5. Frost JD Jr, DeLucchi MR: *J Am Geriatr Soc* 27:541-546, Dec 1979. 6. Kales A, Kales JD: *Clin Pharmacol* 3:140-150, Apr 1983. 7. Greenblatt DJ, Allen MD, Shader RI: *Clin Pharmacol Ther* 21:355-361, Mar 1977. 8. Zimmerman AM: *Curr Ther Res* 13:18-22, Jan 1971. 9. Amrein R et al: *Drugs Exp Clin Res* 9(1):85-99, 1983. 10. Monti JM: *Methods Find Exp Clin Pharmacol* 3:303-326, May 1981. 11. Greenblatt DJ et al: *Sleep* 5(Suppl 1):S18-S27, 1982. 12. Kales A et al: *Pharmacology* 26:121-137, 1983.

## DALMANE®

flurazepam HCl/Roche

Before prescribing, please consult complete product information, a summary of which follows:

**Indications:** Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

**Contraindications:** Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patient to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

**Warnings:** Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

**Precautions:** In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

**Adverse Reactions:** Dizziness, drowsiness, light-headedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, e.g., excitement, stimulation and hyperactivity.

**Dosage:** Individualize for maximum beneficial effect.

**Adults:** 30 mg usual dosage; 15 mg may suffice in some patients. **Elderly or debilitated patients:** 15 mg recommended initially until response is determined.

**Supplied:** Capsules containing 15 mg or 30 mg flurazepam HCl.



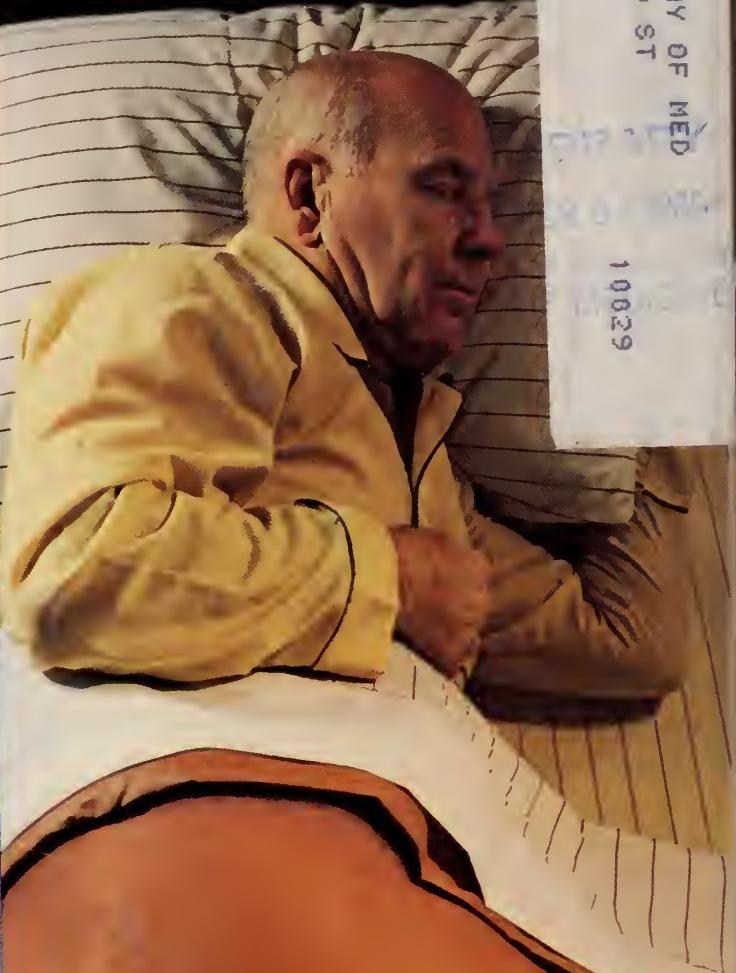
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Manati, Puerto Rico 00070

DOCUMENTED  
IN THE SLEEP  
LABORATORY<sup>1-5</sup> ...

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FOR A COMPLETE NIGHT'S SLEEP

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flurazepam HCl/Roche

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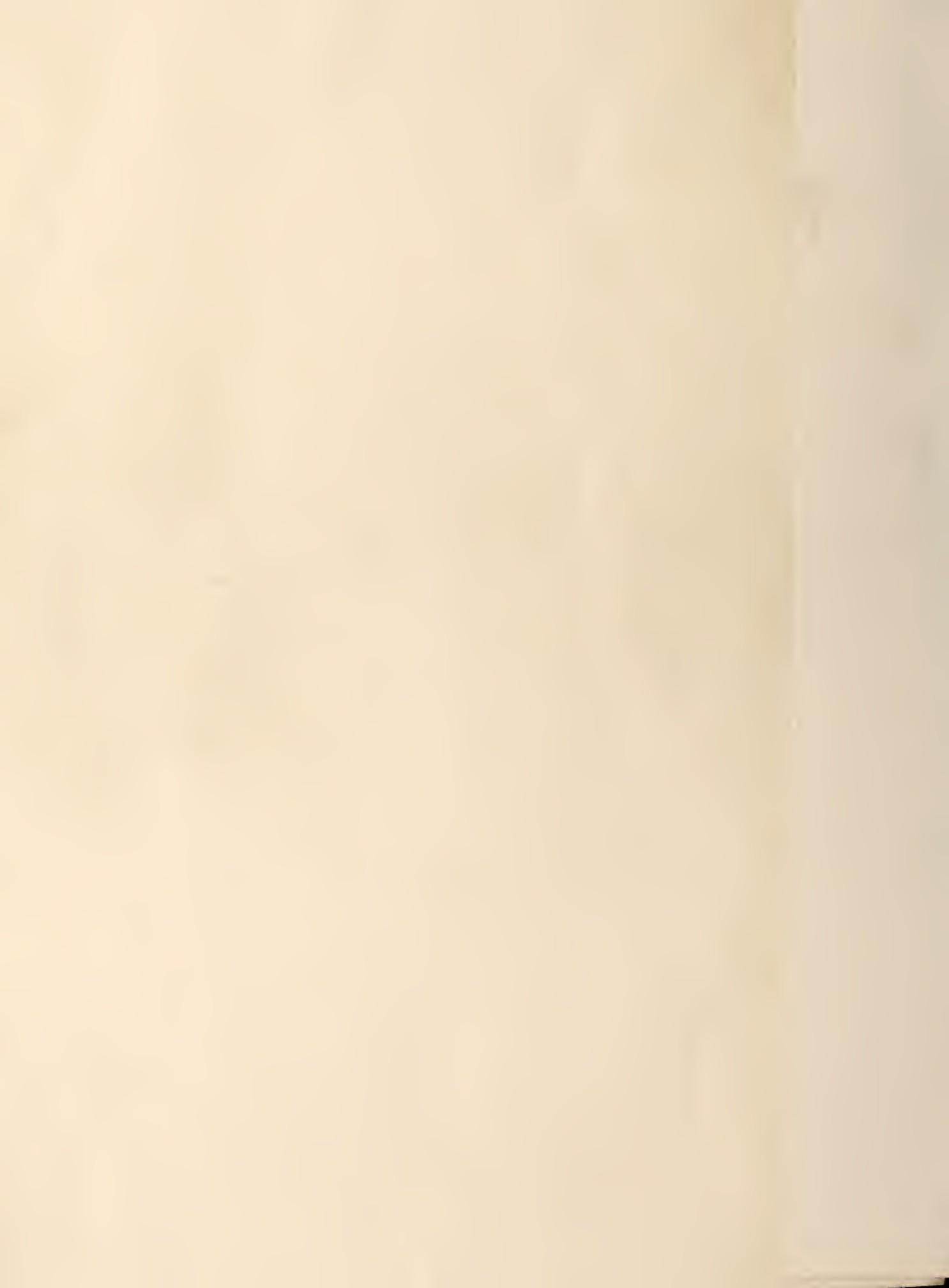
15-MG/30-MG CAPSULES



See preceding page for references and summary of product information.

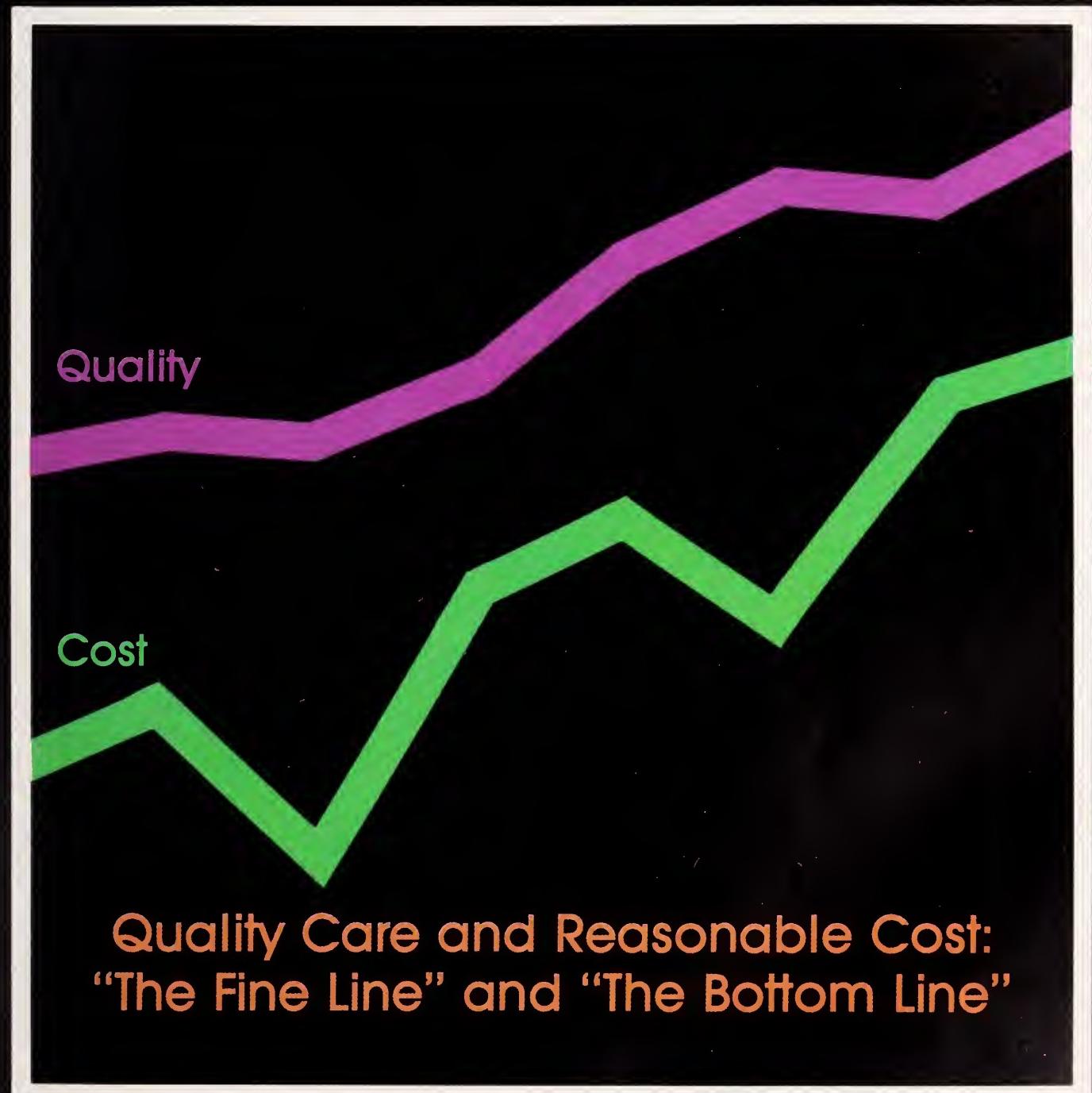
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JOURNAL  
of the MISSISSIPPI  
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1985 HEALTH ISSUES SEMINAR



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February 1985, Volume XXVI, Number 2

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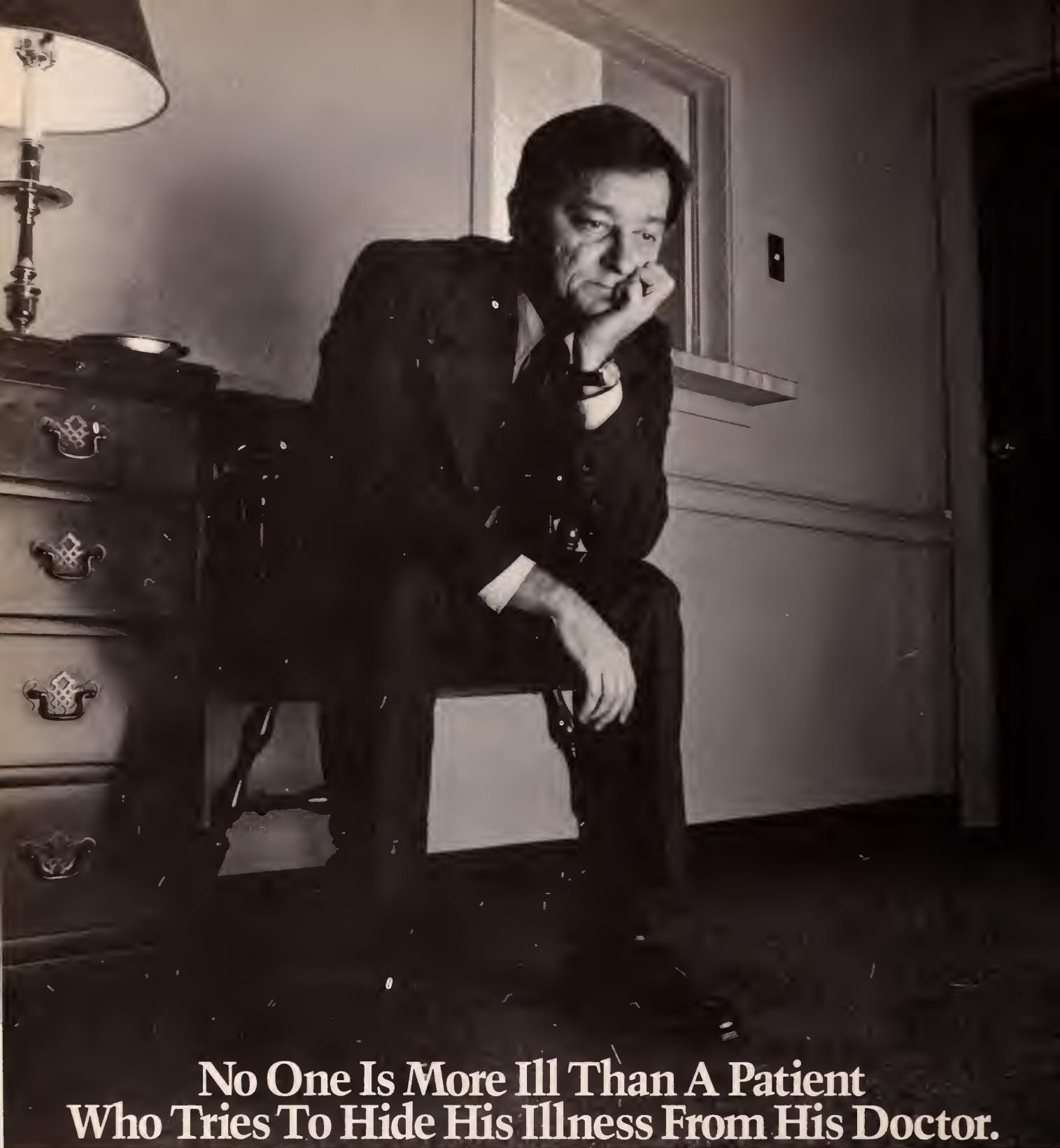
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## No One Is More Ill Than A Patient Who Tries To Hide His Illness From His Doctor.

You know it's not your everyday patient problem. Alcoholism is far different from most other diseases. Patients try to hide it from you. They resist treatment. They deny they have the disease at all.

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tion counseling is frequently needed.

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# NEWSLETTER

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February 1985

Dear Doctor:

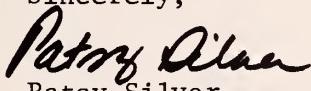
Quality Care and Reasonable Cost: "The Fine Line" and "The Bottom Line" -- that's the theme of the 1985 MSMA Health Issues Seminar, March 1-2, at the Holiday Inn Downtown in Jackson. MSMA members and spouses are urged to participate in this intensive discussion of issues facing the medical profession. Registration information can be found on pages 49 and 50 of this issue of your journal.

"Issues Facing the 99th Congress" is the topic that will lead off discussions during the Friday night banquet which opens the conference. Saturday's program begins with a breakfast at 7:30 a.m. Topics include: "How the AMA Views the Issues," "Competition in Medicine," Practice Management and Marketing Health Services," "Positive Thinking and Motivation," and "Washington Update."

Watch for next month's issue of JOURNAL MSMA, which will include the complete report adopted by the MSMA House of Delegates at its special session Saturday, January 12. The report recommends numerous changes and special MSMA programs to ensure that quality medical care is provided through efficient utilization of resources. Recommendations were based on the following principles: placing reliance on economic incentives rather than government regulation of prices and utilization; recognizing and addressing the impact of tax laws; supporting quality of health care; increasing financial responsibility by patients for the care they receive; educating providers and consumers in cost effective behavior; and having all parties in the health care system share the impact of cost containment. At the direction of the House of Delegates, the report will be distributed statewide as an official policy statement of the MSMA. The association will work toward implementing the recommendations over the next several years.

Another new service has been added for subscribers to the AMA/GTE medical information system. It's an electronic bulletin board, which may be used for communications on such topics as employment opportunities, clinical cases, and requests for medical assistance. If you're interested in the AMA/GTE system, contact Lora Lane at MSMA headquarters.

Sincerely,

  
Patsy Silver  
Managing Editor



**"When I realized my chances of becoming disabled by age 65 were *three times greater* than the chances of death . . .**

**I compared disability insurance plans. And I decided that my MSMA-endorsed disability insurance plan**

### **SERVES ME BEST!**

**It's not group insurance, but an individually-owned policy which is *non-cancellable* and *guaranteed renewable*."**

If you're a member of the Mississippi State Medical Association you may be eligible for this outstanding professional disability plan at *discounted premiums*.

- Non-cancellable, guaranteed renewable
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# DATELINE

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**Delay Ordered for  
DTP Vaccinations**

Jackson, MS - Because of a nationwide shortage of DPT vaccine that could continue through the end of this year, the Mississippi State Department of

Health has ordered a delay in giving booster vaccinations. The health department's supply, which is enough to last through March, could be exhausted sooner as private physicians deplete their own supplies and refer their patients to the health department.

---

**AAP Issues Statement  
On Children and TV**

Elk Grove Village, IL - The American Academy of Pediatrics has issued a policy statement on children and television viewing. The Academy recommends, along with other things, that its members provide materials and an approach to counseling children and their families on the subject and urges physicians to participate in efforts to improve the quality of programming and reduce advertising directed to children.

---

**Penicillin-Resistant  
S. Pneumoniae Reported**

Jackson, MS - A case of penicillin-resistant Streptococcus pneumoniae, believed to be the first occurrence in Mississippi, was reported in November at the University Medical Center. Physicians and laboratories are alerted to the possibility that other similar isolates could appear. Such isolates should be reported to the Office of Epidemiology, State Department of Health, Jackson, MS (telephone 1-800-556-0003).

---

**AMA Cites Data  
On Health Care Costs**

Chicago, IL - In its suit challenging provisions of the Deficit Reduction Act of 1984, the AMA filed documents examining data on causes for increased spending on health care. The documents identify three factors as responsible for over 95% of increased spending: general inflation, increased Medicare enrollment, and increased utilization of physicians' services by Medicare patients.

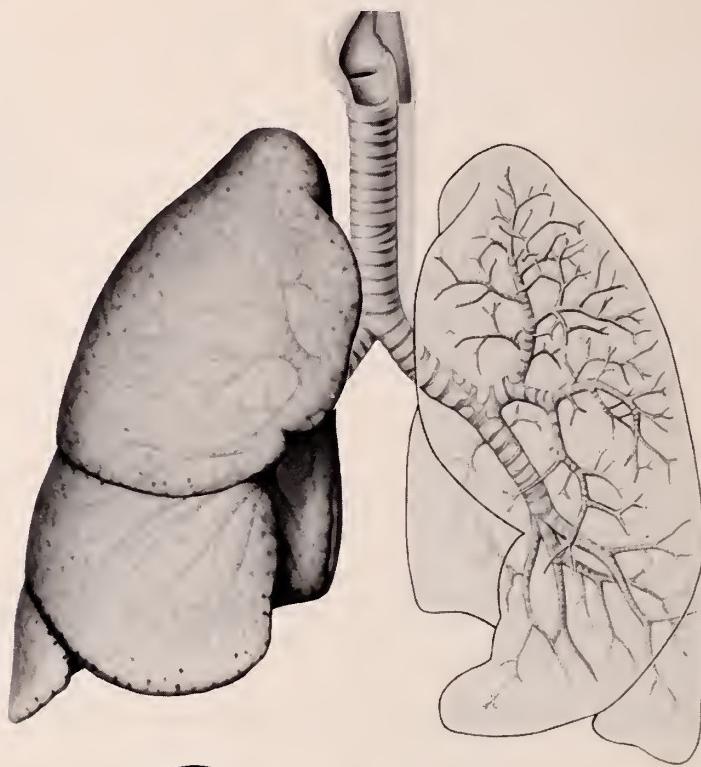
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**Radio and TV  
Advertising of Fees**

Chicago, IL - Radio and television advertising of physicians' fees is an issue that generates strong reactions and differing opinions within the profession, according to the AMA Dept. of Survey and Opinion Research. The percentage of pro-advertising physicians more than doubled between 1978 and 1983, from 8% to 17%. The overwhelming proportion of physicians, however, continue to disapprove of listing fees.

---

# Consider the causative organisms...



## Ceclor® cefaclor 250-mg Pulvules® t.i.d.

**offers effectiveness against  
the major causes of bacterial bronchitis**

***H. influenzae, H. influenzae, S. pneumoniae, S. pyogenes***  
(ampicillin-susceptible) (ampicillin-resistant)

**Brief Summary** Consult the package literature for prescribing information.

**Indications and Usage** Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections including pneumonia caused by *Streptococcus pneumoniae* (*Diplococcus pneumoniae*), *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci).

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

**Contraindication** Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

**Warnings** IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS. AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS INCLUDING ANAPHYLAXIS. TO BOTH DRUG CLASSES.

Antibiotics including Ceclor should be administered cautiously to any patient who has demonstrated some form of allergy particularly to drugs.

Pseudomembranous colitis has been reported with virtually all broad spectrum antibiotics (including macrolides, semisynthetic penicillins, and cephalosporins); therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with the use of antibiotics. Such colitis may range in severity from mild to life-threatening.

Treatment with broad-spectrum antibiotics alters the normal flora of the colon and may permit overgrowth of *Clostridium difficile* as one primary cause of antibiotic-associated colitis.

Mild cases of pseudomembranous colitis usually respond to drug discontinuance alone. In moderate to severe cases, manage-

ment should include sigmoidoscopy, appropriate bacteriologic studies, and fluid, electrolyte, and protein supplementation. When the colitis does not improve after the drug has been discontinued, or when it is severe, oral vancomycin is the drug of choice for antibiotic-associated pseudomembranous colitis produced by *C. difficile*. Other causes of colitis should be ruled out.

**Precautions** General Precautions — If an allergic reaction to Ceclor (cefaclor, Lilly) occurs, the drug should be discontinued and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of Ceclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs' tests have been reported during treatment with cefaclor and other antibiotics. In hematologic studies or in transfusion cross-matching procedures when antibody titers are performed on the minor side or in Coombs' testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs' test may be due to the drug.

Ceclor should be administered with caution in the presence of myasthenia gravis. In such cases, discontinuation of the drug, careful clinical observation and laboratory studies should be made since safe dosage may be lower than that usually recommended.

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinistix® tablets, but not with Tes-Tape® (Glucose Enzymatic Test Strip).

Broad spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.

**Usage in Pregnancy — Pregnancy Category B** — Reproduction studies have been performed in mice and rats at doses up to 12 times the human dose and in ferrets given three times the maximum

human dose and have revealed no evidence of impaired fertility or harm to the fetus due to Ceclor (cefaclor, Lilly). There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

**Nursing Mothers** — Small amounts of Ceclor have been detected in mother's milk following administration of simple 500-mg doses.

Average levels were 0.18, 0.20, 0.21, and 0.16 mcg/ml at two, three, four, and five hours respectively. Trace amounts were detected at one hour. The effect on nursing infant is not known.

Caution should be exercised when Ceclor is administered to a nursing woman.

**Usage in Children** — Safety and effectiveness of this product for use in infants less than one month of age have not been established.

**Adverse Reactions** Adverse effects considered related to therapy with Ceclor are uncommon and are listed below.

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70).

Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment. Nausea and vomiting have been reported rarely.

Hypersensitivity reactions have been reported in about 1.5 percent of patients. These include urticaria, rash, and fever (1 in 100). Pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of serum sickness-like reactions (erythema multiforme or the above skin manifestations accompanied by arthritis/arthritis and frequently fever) have been reported. These reactions are apparently due to hypersensitivity and have usually occurred during or following a second course of therapy with Ceclor. Such reactions have been reported most frequently in children and adults. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy. No serious sequelae have been reported.

Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which have

occurred in patients with a history of penicillin allergy.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

**Causal Relationship Uncertain** — Transitory abnormalities in clinical laboratory tests have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

**Hepatic** — Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

**Haematopoietic** — Transient fluctuations in leukocyte count predominantly lymphocytosis occurring in infants and young children.

**Renal** — Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[061782R]

**Note** Ceclor® (cefaclor, Lilly) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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Additional information available to  
the profession on request from  
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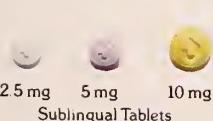
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# **Angina comes in many forms...**



**So does**  
**SORBITRATE®**  
**(ISOSORBIDE DINITRATE)**

**Unsurpassed flexibility  
in nitrate therapy.**



Sustained Action  
"Swallow" Tablets

# SORBITRATE® (ISOSORBIDE DINITRATE)

Please consult full prescribing information before use. A summary follows:

**INDICATIONS AND USAGE:** SORBITRATE (isosorbide dinitrate) is indicated for the treatment and prevention of angina pectoris. All dosage forms of isosorbide dinitrate may be used prophylactically to decrease frequency and severity of anginal attacks and can be expected to decrease the need for sublingual nitroglycerin.

The sublingual and chewable forms of the drug are indicated for acute prophylaxis of angina pectoris when taken a few minutes before situations likely to provoke anginal attacks. Because of a slower onset of effect, the oral forms of isosorbide dinitrate are not indicated for acute prophylaxis.

**CONTRAINDICATIONS:** SORBITRATE is contraindicated in patients who have shown purported hypersensitivity or idiosyncrasy to it or other nitrates or nitrites. Epinephrine and related compounds are ineffective in reversing the severe hypotensive events associated with overdose and are contraindicated in this situation.

**WARNINGS:** The benefits of SORBITRATE during the early days of an acute myocardial infarction have not been established. If one elects to use organic nitrates in early infarction, hemodynamic monitoring and frequent clinical assessment should be used because of the potential deleterious effects of hypotension.

**PRECAUTIONS: General:** Severe hypotensive response, particularly with upright posture, may occur with even small doses of SORBITRATE. The drug should therefore be used with caution in subjects who may have blood volume depletion from diuretic therapy or in subjects who have low systolic blood pressure (e.g., below 90 mmHg). Paradoxical bradycardia and increased angina pectoris may accompany nitrate-induced hypotension. Nitrate therapy may aggravate the angina caused by hypertrophic cardiomyopathy.

Marked symptomatic orthostatic hypotension has been reported when calcium channel blockers and organic nitrates were used in combination. Dose adjustment of either class of agents may be necessary.

Tolerance to this drug and cross-tolerance to other nitrates and nitrites may occur. Tolerance to the vascular and antanginal effects of isosorbide dinitrate or nitroglycerin has been demonstrated in clinical trials, experience through occupational exposure, and in isolated tissue experiments in the laboratory. The importance of tolerance to the appropriate use of isosorbide dinitrate in the management of patients with angina pectoris has not been determined. However, one clinical trial using treadmill exercise tolerance (as an end point) found an 8-hour duration of action of oral isosorbide dinitrate following the first dose (after a 2-week placebo washout) and only a 2-hour duration of effect of the same dose after 1 week of repetitive dosing at conventional dosing intervals. On the other hand, several trials have been able to differentiate isosorbide dinitrate from placebo after 4 weeks of therapy and, in open trials, an effect seems detectable for as long as several months.

Tolerance clearly occurs in industrial workers continuously exposed to nitroglycerin. Moreover, physical dependence also occurs since chest pain, acute myocardial infarction, and even sudden death have occurred during temporary withdrawal of nitroglycerin from the workers. In clinical trials in angina patients, there are reports of anginal attacks being more easily provoked and of rebound in the hemodynamic effects soon after nitrate withdrawal. The relative importance of these observations to the routine, clinical use of isosorbide dinitrate is not known. However, it seems prudent to gradually withdraw patients from isosorbide dinitrate when the therapy is being terminated, rather than stopping the drug abruptly.

**Information for Patients:** Headache may occur during initial therapy with SORBITRATE. Headache is usually relieved by the use of standard headache remedies or by lowering the dose and tends to disappear after the first week or two of use.

**Drug Interactions:** Alcohol may enhance any marked sensitivity to the hypotensive effect of nitrates.

Iosorbide dinitrate acts directly on vascular smooth muscle; therefore, any other agent that depends on vascular smooth muscle as the final common path can be expected to have decreased or increased effect depending on the agent.

**Carcinogenesis, Mutagenesis, Impairment of Fertility:** No long-term studies in animals have been performed to evaluate the carcinogenic potential of this drug. A modified two-litter reproduction study in rats fed isosorbide dinitrate at 25 or 100 mg/kg/day did not reveal any effects on fertility or gestation or any remarkable gross pathology in any parent or offspring fed isosorbide dinitrate as compared with rats fed a basal-controlled diet.

**Pregnancy Category C:** Isosorbide dinitrate has been shown to cause a dose-related increase in embryotoxicity (increase in mummified pups) in rabbits at oral doses 35 and 150 times the maximum recommended human daily dose. There are no adequate and well-controlled studies in pregnant women. SORBITRATE should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

**Nursing Mothers:** It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when SORBITRATE is administered to a nursing woman.

**Pediatric Use:** The safety and effectiveness of SORBITRATE in children has not been established.

**ADVERSE REACTIONS:** Adverse reactions, particularly headache and hypotension, are dose-related. In clinical trials at various doses, the following have been observed:

Headache is the most common (reported incidence varies widely, apparently being dose-related, with an average occurrence of about 25%) adverse reaction and may be severe and persistent. Cutaneous vasodilation with flushing may occur. Transient episodes of dizziness and weakness, as well as other signs of cerebral ischemia associated with postural hypotension, may occasionally develop (the incidence of reported symptomatic hypotension ranges from 2% to 36%). An occasional individual will exhibit marked sensitivity to the hypotensive effects of nitrates and severe responses (nausea, vomiting, weakness, restlessness, pallor, perspiration, and collapse) may occur even with the usual therapeutic dose. Drug rash and/or exfoliative dermatitis may occasionally occur. Nausea and vomiting appear to be uncommon. Case reports of clinically significant methemoglobinemia are rare at conventional doses of organic nitrates. The formation of methemoglobin is dose-related and, in the case of genetic abnormalities of hemoglobin that favor methemoglobin formation, even conventional doses of organic nitrates could produce harmful concentrations of methemoglobin.

**DOSAGE AND ADMINISTRATION:** For the treatment of angina pectoris, the usual starting dose for sublingual SORBITRATE is 2.5 to 5 mg, for chewable tablets, 5 mg; for oral (swallowed) tablets, 5 to 20 mg; and for controlled-release forms, 40 mg.

SORBITRATE should be titrated upward until angina is relieved or side effects limit the dose. In ambulatory patients, the magnitude of the incremental dose increase should be guided by measurements of standing blood pressure.

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SORBITRATE in oral doses of 10 to 40 mg given every 6 hours or in oral controlled-release doses of 40 to 80 mg given every 8 to 12 hours is generally recommended. The extent to which development of tolerance should modify the dosage program has not been defined. The oral controlled-release forms of isosorbide dinitrate should not be chewed.

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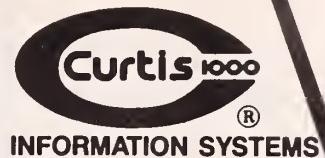
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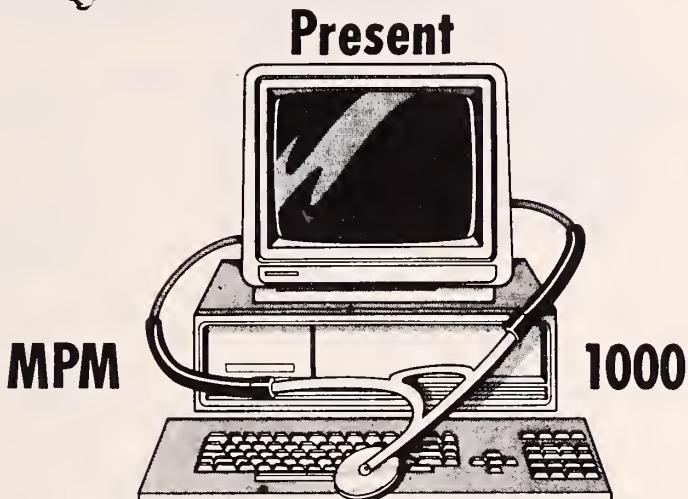
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ORIGINAL PAPERS

# Does Blood Pressure Cuff Size Make a Difference In Blood Pressure Readings?

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IT HAS BEEN RECOMMENDED by the American Heart Association (AHA) that accurate blood pressure readings require specific sizes of cuffs, depending on the size of the arm.<sup>1</sup> One of the authors (WCN) recognized that not all hospital wards, or indeed physicians' offices, have readily available the appropriate cuff for all sized arms. The cuff width usually available is the regular adult size with a bladder width of 13 cm and a length of 24 cm. In a hospital setting, did the use of a wrong size cuff affect the blood pressure readings and if so, by how much?

## Study Method

A total of 90 patients hospitalized at the University Hospital were studied. Of these, 30 were defined as having normal sized arms with circumference between 22-32 cm. Sixty had large arms — 57 with circumference between 32-42 cm and 3 greater than 42 cm. Arm circumference was measured midway between the elbow and the acromion (shoulder tip). Only patients in a stable state with normal cardiac rhythm were studied.

From the Department of Internal Medicine (Dr. Nicholas), the Department of Preventive Medicine (Dr. Watson, Mr. Barnes, and Ms. Goodnow) and the Department of Nursing Service (Ms. Russell), University Medical Center, Jackson, MS.

---

*The authors conducted a study to determine whether or not blood pressure cuff size affected blood pressure readings. They recommend that all institutions and offices have available the three adult cuff sizes recommended by the American Heart Association and that the size of the arm be considered when deciding which cuff to use in recording blood pressure.*

---

The study plan required that systolic and diastolic pressures be measured on each subject with two different sized cuffs. In patients with normal sized arms, the regular adult and large adult cuffs were used. The AHA-recommended cuff size for normal sized arms is the regular adult cuff. Patients with large arms were divided into two groups. In Group A the large adult and thigh cuffs were used. In Group B the regular and large adult cuffs were used. In this group of patients, the AHA recommends the use of the large adult cuff with a bladder width of 17 cm and a length of 32 cm.

Both cuffs were applied twice in alternating order, taking into account any "regression to the mean" phenomena which might bias the results. All sub-

jects were in the sitting or supine position for at least five minutes prior to pressure determination. The four pressure determinations were taken on the same arm with one-minute intervals between each reading. The measurements were taken by two trained observers according to standardized techniques as recommended by the AHA<sup>1</sup> using a random zero sphygmomanometer.

## Results

Our patients were predominantly black and female (see Table 1). The arm sizes are shown with the mean, median and standard deviations recorded (see Tables 2 and 3).

Blood pressure data comparing the two study groups has been analyzed and is shown in Table 4. One diastolic pressure went unrecorded in the normal arm group. Although we did four pressure determinations feeling there may be a regression to the mean, this did not occur, and we have thus used the first two readings in a single crossover design with random allocation of subjects to either sequence AB or BA. The table contains overall means and standard errors for each cuff used. The estimated mean cuff differences and their standard errors are also presented. One-sided T-tests were used to test for significance of the cuff differences.

The estimated mean cuff differences varied from a low of 1.53 mm Hg to a high of 7.00 mm Hg. Statistical significance is reached in four of six readings.

## Discussion

The AHA in its 1980 booklet "Recommendation for Human Blood Pressure Determination by Sphygmomanometer" has established guidelines for the most accurate indirect method of determining blood pressure. They recommend that for the average adult arm (circumference 24-32 cm) a bladder width of 13 cm and a length of 24 cm should be used. For obese arms (circumference 32-42 cm) a bladder width of 17 cm and a length of 32 cm and for yet larger arms, a thigh cuff with 20 cm bladder width and 42 cm length will give the most accurate reading (see Table 5).

Early blood pressure cuffs were narrow: the one designed by Riva-Rocci around 1895 was 5 cm in width.<sup>2</sup> About five years later, Von Recklinghausen recognized that the cuff width affected the accuracy of the pressure reading.<sup>3</sup> He noted that the indirect blood pressure readings fell as the width of the cuff was increased, with little change beyond the 12 cm wide cuff, except in people with large arms.

Several workers have shown conclusively that

TABLE 1  
RACE-SEX DISTRIBUTION OF NORMAL ARM AND  
LARGE ARM STUDY GROUPS

a. Normal Arm Subjects

Race	Sex		Total
	Male	Female	
White	2	5	7 ( 23.3%)
Black	9	13	22 ( 73.3%)
American Indian	0	1	1 ( 3.3%)
Total	11 (36.7%)	19 (63.3%)	30 (100.0%)

b. Large Arm Subjects			
White	Male	Female	
Black	1	13	14 ( 23.3%)
Total	9	37	46 (76.7%)

Class Interval (cm.)	Normal and Large Cuff Males	Normal and Large Cuff Females
20.1-22.0	1	2
22.1-24.0	3	2
24.1-26.0	2	2
26.1-28.0	0	2
28.1-30.0	4	6
30.1-32.0	1	5
Total	11	19
Mean	26.59	27.54
Standard Deviation	3.49	3.60
Median	36.00	28.50

TABLE 2  
ARM CIRCUMFERENCE DISTRIBUTION OF  
NORMAL ARM STUDY GROUP BY SEX

Class Interval (cm.)	Normal and Large Cuff Males	Normal and Large Cuff Females
20.1-22.0	1	2
22.1-24.0	3	2
24.1-26.0	2	2
26.1-28.0	0	2
28.1-30.0	4	6
30.1-32.0	1	5
Total	11	19
Mean	26.59	27.54
Standard Deviation	3.49	3.60
Median	36.00	28.50

TABLE 3  
ARM CIRCUMFERENCE DISTRIBUTION OF LARGE ARM  
STUDY GROUP BY SEX

Class Interval (cm.)	Large and Thigh Cuff Males	Large and Thigh Cuff Females	Normal and Large Cuff Males	Normal and Large Cuff Females
32.1-34.0	2	9	3	3
34.1-36.0	0	5	0	9
36.1-38.0	2	4	1	6
38.1-40.0	1	4	0	4
40.1-42.0	0	2	1	1
> 42.0	0	1	0	2
Total	5	25	5	25
Mean	36.10	36.78	35.50	36.26
Standard Deviation	2.88	3.72	3.50	2.73
Median	37.00	36.00	32.50	36.00

blood pressure readings depend on the size of the cuff and the size of the arm. A cuff of inappropriate size in relation to the patient's arm circumference can give misleading results.<sup>4-6</sup> Regular size cuffs on large arms give falsely elevated levels and large cuffs on normal arms tend to give falsely lower levels compared to the recommended regular size cuff. A recent study by Maxwell, where 84,000 blood pressure measurements were recorded by trained nurse specialists using three sizes of cuffs on 1,240 obese patients, found that the differences in readings with the three cuffs became progressively greater with increasing arm size and that the regular cuff showed the greatest bias in relation to size of arm.<sup>7</sup>

Geddes<sup>5</sup> in the assessment of 52 "heavy" adults using three standard cuffs concluded that a cuff width to arm circumference ratio of 0.34 overestimates the blood pressure by about five percent; a cuff width to arm circumference of 0.50 underestimates blood pressure by about five percent. The recommended ratio by the AHA is 0.4 which should cause no more than a five percent discrepancy in the pressure reading.

Our findings revealed that the regular cuff gives progressively higher readings the larger the arm. On large arms, the regular cuff gave a 7.0 mm Hg systolic and a 2.73 mm Hg diastolic higher reading than the large adult cuff. All our systolic differences were statistically significant, but only the large cuff and regular cuff diastolic on normal sized arms reached a significant difference of 3.5 mm Hg. We had expected to find significant differences when using the regular cuff on large arms. The systolic difference was very significant, but not the diastolic. We cannot explain this discrepancy. However, our values were not unlike Maxwell et al, who in the moderately obese found a systolic difference of 5.2 mm Hg and a diastolic of 4.1 mm Hg using similar sized cuffs.

The question as to which size cuff is the most accurate in assessing the true intra-arterial blood pressure needs to be considered. Several studies have addressed this issue with conflicting results.<sup>8-11</sup> There is agreement that, with the regular 13 cm wide cuff, falsely high blood pressure readings are obtained in large arms and that in the very obese, the forearm blood pressure is a more accurate reflection of true arterial pressure.<sup>12</sup> Holland<sup>11</sup> found an excellent correlation coefficient between cuff reading and intra-arterial pressure with the latter being slightly higher. He used a regular 12 cm wide cuff and also demonstrated that arm size has some correlation with intra-arterial pressure.

TABLE 4

CUFF COMPARISONS FOR THE NORMAL ARM AND LARGE ARM STUDY GROUPS: BLOOD PRESSURE MEANS AND STANDARD ERRORS (MEAN  $\pm$  SEM)

Normal Arm Study Group (n=30)			
	Regular Adult Cuff	Large Adult Cuff	Cuff Difference
Systolic BP	124.60 $\pm$ 4.12	120.20 $\pm$ 3.79	4.40 $\pm$ 1.66 <sup>†</sup>
Diastolic BP*	71.30 $\pm$ 2.83	67.79 $\pm$ 2.95	3.52 $\pm$ 1.25 <sup>‡</sup>
Large Arm Study Group A (n=30)			
	Large Adult Cuff	Thigh Cuff	Cuff Difference
Systolic BP	123.13 $\pm$ 3.74	117.87 $\pm$ 3.75	5.27 $\pm$ 1.69 <sup>‡</sup>
Diastolic BP	62.87 $\pm$ 2.37	61.33 $\pm$ 2.68	1.53 $\pm$ 1.46
Large Arm Study Group B (n=30)			
	Regular Adult Cuff	Large Adult Cuff	Cuff Difference
Systolic BP	133.73 $\pm$ 3.29	126.73 $\pm$ 3.51	7.00 $\pm$ 1.77 <sup>‡</sup>
Diastolic BP	75.20 $\pm$ 2.93	72.47 $\pm$ 2.19	2.73 $\pm$ 1.84

\* One diastolic blood pressure unrecorded (n=29)

† p < .01

‡ p < .005

TABLE 5

RECOMMENDED BLADDER DIMENSIONS FOR BLOOD PRESSURE CUFF

Arm Circumference at Midpoint*	Cuff Name	Bladder Width (cm)	Bladder Length (cm)
(cm)			
5-7.5	Newborn	3	5
7.5-13	Infant	5	8
13-20	Child	8	13
17-26	Small Adult	11	17
24-32	Adult	13	24
32-42	Large Adult	17	32
42-50 <sup>†</sup>	Thigh	20	42

\* Midpoint of arm is defined as half the distance from the acromion to the olecranon.

† In persons with very large limbs, the indirect blood pressure should be measured in the leg or forearm.

### Conclusion

Hypertension is a serious medical problem that requires effective long term and, in many cases, costly therapy.<sup>13</sup> It is therefore essential that we do not misclassify patients, thus causing them to be taking medications needlessly, which could easily happen when we use the regular adult cuff on large arms. This would be the most likely error since the regular adult cuff is not only the one frequently used

regardless of arm size, but in many situations is the only cuff readily available.

We recommend that all institutions and offices have readily available the three adult cuff sizes recommended by the AHA and that the size of the arm be considered when deciding which cuff to use in recording the blood pressure.

★★★

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# Tumor Previa: A Perinatal Dilemma

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ALTHOUGH OVARIAN TUMORS infrequently complicate pregnancy, when present they represent difficult diagnostic and management problems for the obstetrician.<sup>1, 8</sup> Nearly every type of ovarian lesion from simple physiologic cysts to true neoplasms, both benign and malignant, have been reported during gestation. Specific management of ovarian enlargement varies with the stage of gestation at diagnosis, symptomatology and size of the lesion as well as concern regarding neoplastic potential.<sup>5</sup>

Up to 30% of ovarian masses in pregnancy are not discovered until the third trimester or during the puerperium.<sup>3, 10</sup> Torsion and/or rupture of ovarian masses can also occur spontaneously anytime in gestation or during labor and may result in significant maternal morbidity. Additionally, malignant ovarian tumors are not rare, accounting for 2.4% to 8% of all ovarian masses during pregnancy.<sup>2, 10</sup> Finally, ovarian lesions may be large enough to cause obstructed labor and prevent vaginal delivery. This condition is referred to as tumor previa and represents a serious complication of pregnancy.

We present a patient with tumor previa resulting from a large ovarian mucinous cystadenoma. The management of tumor previa as well as potential torsion, rupture and malignancy of ovarian masses during pregnancy is discussed.

## Case Report

G.A. was a 24-year-old G<sub>1</sub>, P<sub>0</sub> referred to the University of Mississippi Ambulatory Obstetric Clinic at 36 weeks gestation for evaluation of an adnexal mass. The pregnancy had been uncomplicated until a transverse lie was noted at 33 weeks and a 14 cm x 12 cm x 7 cm cystic right adnexal mass was discovered by ultrasound. No masses had been described on previous vaginal/abdominal examinations. The surgical and gynecologic history of the

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*Ovarian masses complicating pregnancy by torsion, rupture, malignancy or obstructed labor are not rare. The authors report a case of a mucinous cystadenoma and its effect on the parturient. They discuss the management of ovarian masses discovered during pregnancy.*

---

patient was unremarkable except for a prior appendectomy.

Upon referral to our clinic the patient had no symptomatic complaints. The fundal height was 35 cm and the uterus was noted to be markedly deviated to the left. There was a 25 cm by 10 cm cystic mass filling the right lower quadrant and extending into the cul-de-sac. The cervix was deviated anteriorly behind the symphysis. An ultrasound examination revealed a single fetus in the vertex presentation with a biparietal diameter consistent with 37 weeks gestation. The placenta was anterior and fundal. A large cystic mass was seen by ultrasound with multiple internal septae, measuring 26 cm by 11 cm by 12.5 cm in the right lower quadrant, posterior to the cervix and uterus. An amniocentesis was performed and an L/S ratio of 7.3:1 was obtained.

Because of the size of the mass and the displacement of the cervix, it was decided that a primary cesarean birth was the best method of delivery. The infant was a 2800 gm female with 9/10 Apgars at 1 and 5 minutes. Following uterine decompression, a large cystic mass was found arising from the cul-de-sac and extending into the upper abdomen. After repair of the uterine incision, the mass was exteriorized and noted to be a right ovarian cyst (see Figure 1). A right salpingo-oophorectomy was performed. During excision of the mass a portion of the cyst ruptured, though no intraperitoneal spillage occurred. The fluid was clear and somewhat viscous and the inside lining of the cyst was white and

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smooth. There were no solid areas or papillary excrescences. The left tube and ovary were normal. A thorough abdominal exploration was negative for any evidence of metastatic disease. On frozen and permanent section the adnexal mass was identified as being a benign mucinous cystadenoma of the right ovary (see Figure 2). The patient's postoperative course was uncomplicated and she as well as her infant were discharged on the fifth postoperative day.

### Discussion

The incidence of ovarian neoplasms complicating pregnancy has been reported by Tawa to vary from 1 in 273 to 1 in 2,489.<sup>7</sup> Booth and Hill have reported an average incidence of 1 in 500-600 pregnancies.<sup>3, 5</sup> The masses may be discovered at any stage of gestation or during the puerperium but 14%-30% are unrecognized until late in pregnancy. Those commonly reported late in pregnancy are benign cystic teratomas as well as serous and mucinous cystadenomas.<sup>3, 10</sup> Endometriomas, theca lutein cysts and luteomas of pregnancy are less frequent.

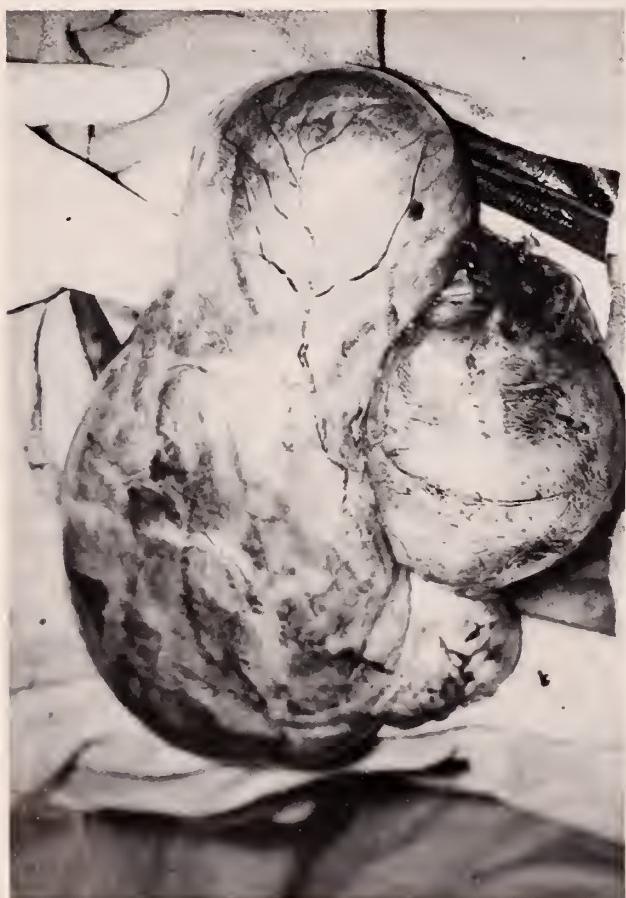


Figure 1. Gross appearance of the tumor.

Gonadal stromal tumors and germ cell tumors may also occur, although they are rare. The incidence of malignancy has been reported to vary from 2.4% to 8%.<sup>2, 10</sup>

Large masses discovered late in pregnancy may obstruct normal labor and delivery or undergo torsion as well as rupture. Torsion of adnexal masses appears to occur more frequently in the pregnant woman than in the nonpregnant state. Torsion leads to a diminution of the blood supply to the cyst with subsequent pain and abdominal tenderness. Infection and rupture of the mass are potential sequelae of torsion. Torsion in pregnancy occurs most often prior to 20 weeks.<sup>2, 7</sup> However, it may rarely occur late in pregnancy or as a result of labor. The possibility of adnexal torsion should always be a consideration in the presence of persistent pain in a pregnancy complicated by an ovarian mass. Prompt laparotomy with excision of the mass is required in this situation to prevent subsequent rupture or infection.

While the overall incidence of rupture of cystic ovarian masses during pregnancy is small, this complication occurs more commonly than torsion in the third trimester and during labor. This appears to be particularly true of dermoid cysts.<sup>6, 7</sup> The spillage of the cyst contents into the peritoneal cavity can result in severe morbidity from chemical peritonitis and is dependent on the type of ovarian lesions that are present. This situation requires aggressive operative management and subsequent medical support with antibiotic therapy as well as fluid and electrolyte replacement.

Ovarian masses that remain within the pelvis may be sufficiently large to obstruct vaginal delivery as in this case report. Tumor previa with significant displacement of the cervix and obstruction of the presenting part with subsequent dystocia was reported in 37.5% of pregnant patients at term with benign cystic teratomas.<sup>7</sup> Such cases are best managed by documentation of fetal maturity, elective primary cesarean birth and resection of the ovarian mass prior to the onset of labor. In those instances where labor has already begun with a large mass in the pelvis, early abdominal delivery should be performed to avoid the complications of dystocia as well as rupture of the cyst. In those situations where the mass is unlikely to significantly interfere with vaginal delivery, labor and vaginal birth may be attempted although close observation for evidence of obstructed labor and signs of torsion or rupture is mandatory. If vaginal delivery does occur, abdominal exploration and resection of the mass, if > 6-10 cm in size, should be performed early in the puerperium.

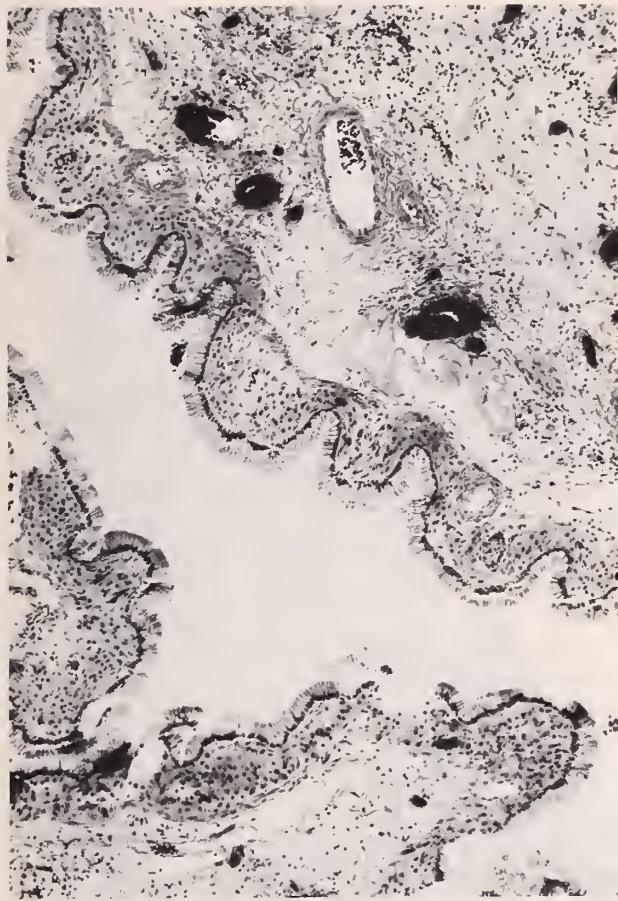


Figure 2. Microscopic section of mucinous cystadenoma.

All ovarian masses must be carefully assessed for signs of malignancy, such as solid areas, papillary excrescences, or ascitic peritoneal fluid. Biopsy and frozen section are advisable, regardless of the gross appearance of the tumor. The other ovary must always be inspected and biopsied if it appears abnormal. If a malignant tumor is discovered, or a definitive diagnosis is questionable, one must carefully assess the stage of the disease. As with the early ovarian carcinomas in the nonpregnant state, careful exploration and biopsy of areas of common spread may reveal microscopic metastatic disease. This may include thorough abdominal exploration, with biopsy of dependent peritoneal surfaces, peritoneal washings, omental biopsy, as well as pelvic and paraaortic node sampling. This concept is especially important if less than aggressive therapy is contemplated. All patients undergoing laparotomy for an ovarian mass during pregnancy must be counseled regarding the possibility of malignancy, and an in-

formed consent for more radical surgery than anticipated should be obtained in advance. One must weigh the advantages of definitive radical surgery, hysterectomy and bilateral adnexal removal and/or chemotherapy, versus conservative management with continuation of the pregnancy. Very early in pregnancy and near term the gestation should be terminated, and definitive therapy consistent with the tumor type and stage is usually the treatment of choice. Although Creasman recommends radical treatment in most cases,<sup>4</sup> it appears that malignancies discovered prior to fetal viability and of an early stage (Stage 1) may be safely treated with unilateral adnexal removal, perhaps followed by a second operation and more definitive therapy when fetal maturity is assured and the pregnancy is terminated.<sup>9</sup>

In summary, although the problem of ovarian tumors late in pregnancy is rare, the obstetrician should be prepared to intelligently evaluate them when they occur and formulate a rational plan of management based upon knowledge of the common types of tumors and their possible complications including torsion, rupture, interference with normal delivery and malignancy. ★★

Dr. Morrison: 2500 North State Street (39216)

#### Acknowledgment

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# Rotatory Subluxation of the Scaphoid

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ROTARY SUBLUXATION of the scaphoid (post traumatic scapholunate dissociation) is a cause of chronic wrist pain, and if untreated, may lead to disabling degenerative changes. The condition may be difficult to diagnose. A definite history of trauma may not be present and radiographic findings are often subtle. A high index of suspicion, combined with particular attention to details of radiographic positioning are required to make the diagnosis in some cases. In particular, an anteroposterior view of the wrist with power grip may demonstrate an otherwise occult lesion.

## Case Report

A 34-year-old, right-handed physician was skiing at a Colorado ski resort when he took several falls on his outstretched hand with his wrist dorsiflexed during the course of a day's skiing on beginner and intermediate slopes. He had not noticed any particular injury during the day, but at the conclusion of his skiing, he noticed that his right wrist ached. He did not think he had any major injury and continued to ski throughout the remainder of the vacation. The pain in his wrist inhibited his motion, pinch and grip and persisted. It was particularly bothersome to him when performing office procedures upon the resumption of his patient care responsibilities. Routine x-rays taken approximately two weeks after the accident did not demonstrate any abnormality (see Figure 1). The pain persisted and continued to inhibit his motion and his pinch and grasp. He sought further consultation and an anteroposterior view of the right wrist with power grip demonstrated a diastasis between the scaphoid and the lunate indicating a scapholunate dissociation (see Figure 2).

## Discussion

Rotatory subluxation of the scaphoid may occur

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*Rotatory subluxation of the scaphoid is a condition that may lead to chronic disability of the wrist. History, physical findings, and conventional radiographs are sometimes unrevealing, according to the authors. They present a case report and recommend specially positioned radiographs to diagnose the condition.*

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either as an isolated abnormality or as a result of either a lunate or perilunate carpal dislocation.<sup>1</sup> In the isolated form, there may or may not be a definite history of trauma, although some patients are by reason of vocation or recreational activities subjected to wrist stress.<sup>2</sup> There also appears to be a group of persons who exhibit bilateral navicular subluxation, without a history of trauma or unusual stress. In these patients, a congenital ligamentous laxity is proposed.<sup>2</sup>

The proximal and distal rows of carpals form a hinge joint which would be unstable except for the action of the scaphoid which functions as a connecting rod to stabilize the two carpal rows. While interactions of the carpals are complex, proper stabilizing function of the scaphoid appears to depend on the integrity of the deep radioscaphe-lunate ligament, scapho-lunate interosseous ligaments, and the scaphoid attachment of the ulnar radiocapitate ligament. Loss of the stabilizing function of the scaphoid, if unconnected, can lead to chronic wrist instability, with pain, loss of function, and degenerative changes.<sup>3, 4</sup>

Clinically patients with scapholunate dissociation may exhibit pain, particularly on dorsiflexion, tenderness, and loss of grip strength. A clicking sensation with movement is occasionally reported.<sup>2, 3</sup>

Three typical radiographic signs are recognized.<sup>2, 3, 4</sup> First, there is widening of the

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From the Department of Radiology, University Medical Center, Jackson, MS.



Figure 1. Standard PA wrist film in neutral position with forearm pronated shows no abnormality. Scapholunate dissociation is often reduced in this position.



Figure 2. AP film with forearm supinated and with fist compression shows widened scapholunate gap which measured approximately 4 mm on original film, confirming the diagnosis of scapholunate dissociation.

scapho-lunate space on the frontal radiograph. More than 2-3 mm is considered abnormal. Additionally, the scaphoid may present a "target" or "ring" appearance in the frontal view as the dorsal rotation brings the proximal and distal poles more nearly parallel to the x-ray beam.

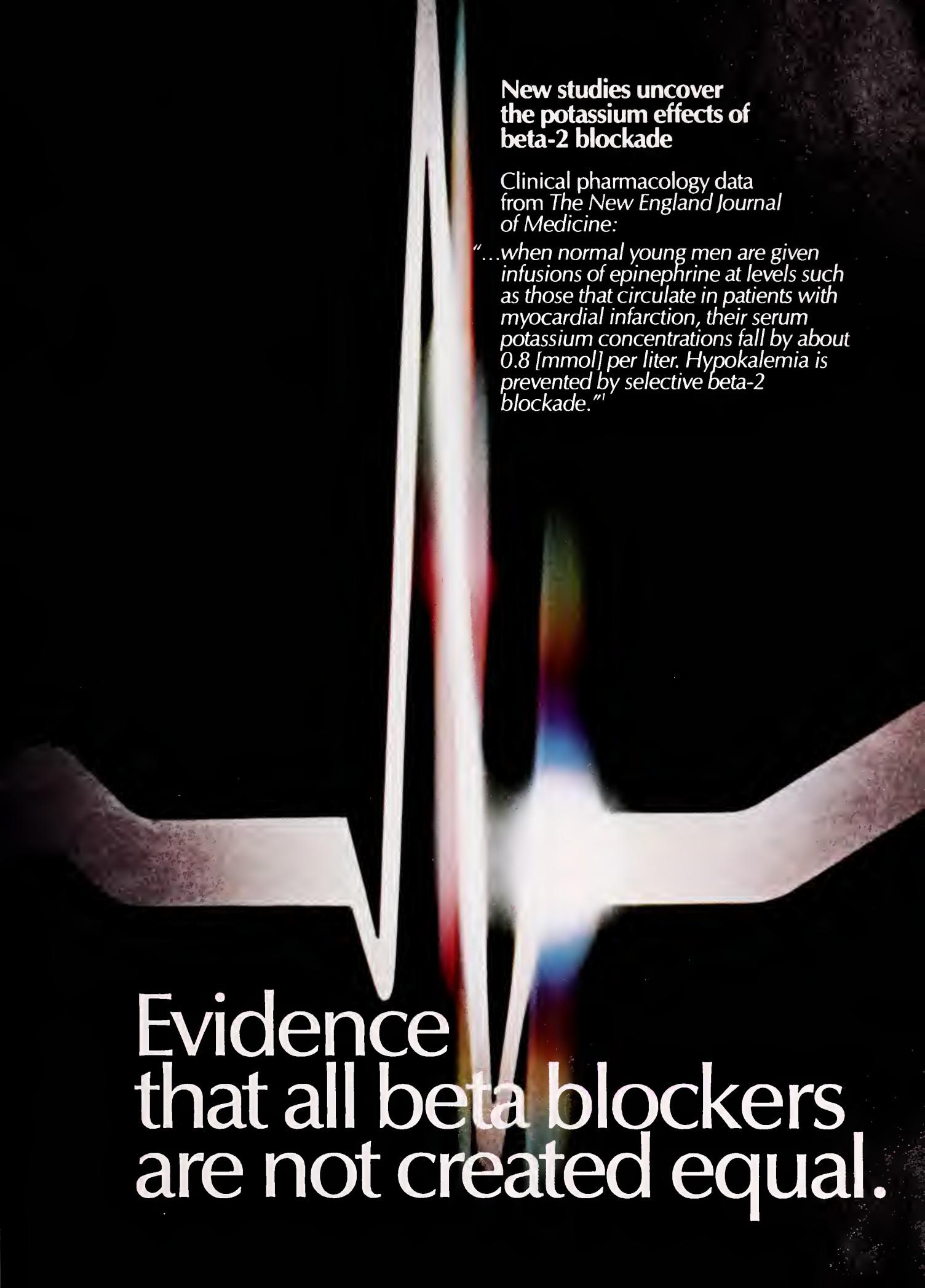
The third finding is an abnormally small radioscaphoid angle on the lateral view. Experience supported by published material indicates that this is the least clinically useful of the three findings. The normal radioscaphoid angle is approximately 150°, ranging in a series of eight normal wrists of 77°-187°. In a series of wrists with RSS, the radioscaphoid angle averaged 127° with a range of 77°-155°. The difficulty of precisely defining the radioscaphoid angle, combined by the effect of slight degrees of obliquity on the apparent angle, makes this sign of somewhat limited clinical usefulness.

Further complicating the radiographic diagnosis of this condition is the fact that certain positional artifacts may simulate scaphoid subluxation. In particular, a frontal view taken in radial flexion<sup>5</sup> may yield a "target" appearance of the scaphoid. This is corrected by slight ulnar flexion.



**Anterior Posterior  
Supination  
Wrist Neutral**

Figure 3. Correct positioning for AP fist compression film. This view accentuates scapholunate dissociation.



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**DESCRIPTION.** Inderal LA is formulated to provide a sustained release of propranolol hydrochloride. Inderal LA is available as 80 mg, 120 mg, and 160 mg capsules.

**CLINICAL PHARMACOLOGY.** Inderal is a nonselective beta-adrenergic receptor blocking agent possessing no other autonomic nervous system activity. It specifically competes with beta-adrenergic receptor stimulating agents for available receptor sites. When access to beta-receptor sites is blocked by Inderal, the chronotropic, inotropic, and vasodilator responses to beta-adrenergic stimulation are decreased proportionately.

Inderal LA Capsules (80, 120, and 160 mg) release propranolol HCl at a controlled and predictable rate. Peak blood levels following dosing with Inderal LA occur at about 6 hours and the apparent plasma half-life is about 10 hours. When measured at steady state over a 24-hour period the areas under the propranolol plasma concentration-time curve (AUCs) for the capsules are approximately 60% to 65% of the AUCs for a comparable divided daily dose of Inderal tablets. The lower AUCs for the capsules are due to greater hepatic metabolism of propranolol resulting from the slower rate of absorption of propranolol. Over a twenty-four (24) hour period, blood levels are fairly constant for about twelve (12) hours then decline exponentially.

Inderal LA should not be considered a simple mg for mg substitute for conventional propranolol and the blood levels achieved do not match (are lower than) those of two to four times daily dosing with the same dose. When changing to Inderal LA from conventional propranolol, a possible need for retitration upwards should be considered especially to maintain effectiveness at the end of the dosing interval. In most clinical settings, however, such as hypertension or angina where there is little correlation between plasma levels and clinical effect, Inderal LA has been therapeutically equivalent to the same mg dose of conventional Inderal as assessed by 24-hour effects on blood pressure and on 24-hour exercise responses of heart rate, systolic pressure and rate pressure product. Inderal LA can provide effective beta-blockade for a 24-hour period.

The mechanism of the antihypertensive effect of Inderal has not been established. Among the factors that may be involved in contributing to the antihypertensive action are (1) decreased cardiac output, (2) inhibition of renin release by the kidneys, and (3) diminution of tonic sympathetic nerve outflow from vasoconstrictor centers in the brain. Although total peripheral resistance may increase initially, it readjusts to or below the pretreatment level with chronic use. Effects on plasma volume appear to be minor and somewhat variable. Inderal has been shown to cause a small increase in serum potassium concentration when used in the treatment of hypertensive patients.

In angina pectoris, propranolol generally reduces the oxygen requirement of the heart at any given level of effort by blocking the catecholamine-induced increases in the heart rate, systolic blood pressure, and the velocity and extent of myocardial contraction. Propranolol may increase oxygen requirements by increasing left ventricular fiber length, end diastolic pressure and systolic ejection period. The net physiologic effect of beta-adrenergic blockade is usually advantageous and is manifested during exercise by delayed onset of pain and increased work capacity.

In dosages greater than required for beta-blockade, Inderal also exerts a quinidine-like or anesthetic-like membrane action which affects the cardiac action potential. The significance of the membrane action in the treatment of arrhythmias is uncertain.

The mechanism of the antimigraine effect of propranolol has not been established. Beta-adrenergic receptors have been demonstrated in the pial vessels of the brain.

Beta receptor blockade can be useful in conditions in which, because of pathologic or functional changes, sympathetic activity is detrimental to the patient. But there are also situations in which sympathetic stimulation is vital. For example, in patients with severely damaged hearts, adequate ventricular function is maintained by virtue of sympathetic drive which should be preserved. In the presence of AV block, greater than first degree, beta-blockade may prevent the necessary facilitating effect of sympathetic activity on conduction. Beta-blockade results in bronchial constriction by interfering with adrenergic bronchodilator activity which should be preserved in patients subject to bronchospasm.

Propranolol is not significantly dialyzable.

**INDICATIONS AND USAGE.** **Hypertension:** Inderal LA is indicated in the management of hypertension; it may be used alone or in combination with other antihypertensive agents, particularly a thiazide diuretic. Inderal LA is not indicated in the management of hypertensive emergencies.

**Angina Pectoris Due to Coronary Atherosclerosis:** Inderal LA is indicated for the long-term management of patients with angina pectoris.

**Migraine:** Inderal LA is indicated for the prophylaxis of common migraine headache. The efficacy of propranolol in the treatment of a migraine attack that has started has not been established and propranolol is not indicated for such use.

**Hypertrophic Subaortic Stenosis:** Inderal LA is useful in the management of hypertrophic subaortic stenosis, especially for treatment of exertional or other stress-induced angina, palpitations, and syncope. Inderal LA also improves exercise performance. The effectiveness of propranolol hydrochloride in this disease appears to be due to a reduction of the elevated outflow pressure gradient which is exacerbated by beta-receptor stimulation. Clinical improvement may be temporary.

**CONTRAINDICATIONS.** Inderal is contraindicated in 1) cardiogenic shock, 2) sinus bradycardia and greater than first degree block, 3) bronchial asthma, 4) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythmia treatable with Inderal.

**WARNINGS.** CARDIAC FAILURE. Sympathetic stimulation may be a vital component supporting circulatory function in patients with congestive heart failure, and its inhibition by beta-blockade may precipitate more severe failure. Although beta-blockers should be avoided in overt congestive heart failure, if necessary, they can be used with close follow-up in patients with a history of failure who are well compensated and are receiving digitalis and diuretics. Beta-adrenergic blocking agents do not abolish the inotropic action of digitalis on heart muscle.

IN PATIENTS WITHOUT A HISTORY OF HEART FAILURE, continued use of beta-blockers can in some cases, lead to cardiac failure. Therefore, at the first sign or symptom of heart failure, the patient should be digitalized and/or treated with diuretics, and the response observed closely, or Inderal should be discontinued (gradually if possible).

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial infarction, following abrupt discontinuance of Inderal therapy. Therefore, when discontinuance of Inderal is planned the dosage should be gradually reduced over at least a few weeks, and the patient should be cautioned against interruption or cessation of therapy without the physician's advice. If Inderal therapy is interrupted and exacerbation of angina occurs, it usually is advisable to reinstitute Inderal therapy and take other measures appropriate for the management of unstable angina pectoris. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease who are given propranolol for other indications.

**Nonallergic Bronchospasm (e.g., chronic bronchitis, emphysema)—** PATIENTS WITH BRONCHOSPASTIC DISEASES SHOULD IN GENERAL NOT RECEIVE BETA BLOCKERS. Inderal should be administered with caution since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of beta receptors.

MAJOR SURGERY. The necessity or desirability of withdrawal of beta-blocking therapy prior to major surgery is controversial. It should be noted, however, that the impaired ability of the heart to respond to reflex adrenergic stimuli may augment the risks of general anesthesia and surgical procedures.



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INDERAL (propranolol HCl), like other beta blockers, is a competitive inhibitor of beta-receptor agonists and its effects can be reversed by administration of such agents, e.g., dobutamine or isoproterenol. However, such patients may be subject to protracted severe hypotension. Difficulty in starting and maintaining the heartbeat has also been reported with beta-blockers.

**DIABETES AND HYPOGLYCEMIA.** Beta-adrenergic blockade may prevent the appearance of certain premonitory signs and symptoms (pulse rate and pressure changes) of acute hypoglycemia in labile insulin-dependent diabetes. In these patients, it may be more difficult to adjust the dosage of insulin.

**THYROTOXICOSIS.** Beta-blockade may mask certain clinical signs of hyperthyroidism. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. Propranolol does not distort thyroid function tests.

**IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME.** several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case this resulted after an initial dose of 5 mg propranolol.

**PRECAUTIONS.** General. Propranolol should be used with caution in patients with impaired hepatic or renal function. Inderal (propranolol HCl) is not indicated for the treatment of hypertensive emergencies.

Beta-adrenergic blockade can cause reduction of intraocular pressure. Patients should be told that Inderal may interfere with the glaucoma screening test. Withdrawal may lead to a return of increased intraocular pressure.

**Clinical Laboratory Tests.** Elevated blood urea levels in patients with severe heart disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase.

**DRUG INTERACTIONS.** Patients receiving catecholamine-depleting drugs such as reserpine should be closely observed if Inderal is administered. The added catecholamine-blocking action may produce an excessive reduction of resting sympathetic nervous activity which may result in hypotension, marked bradycardia, vertigo, syncopal attacks, or orthostatic hypotension.

**Carcinogenesis, Mutagenesis, Impairment of Fertility.** Long-term studies in animals have been conducted to evaluate toxic effects and carcinogenic potential. In 18-month studies in both rats and mice, employing doses up to 150 mg/kg/day, there was no evidence of significant drug-induced toxicity. There were no drug-related tumorigenic effects at any of the dosage levels. Reproductive studies in animals did not show any impairment of fertility that was attributable to the drug.

**Pregnancy.** Pregnancy Category C. Inderal has been shown to be embryotoxic in animal studies at doses about 10 times greater than the maximum recommended human dose.

There are no adequate and well-controlled studies in pregnant women. Inderal should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

**Nursing Mothers.** Inderal is excreted in human milk. Caution should be exercised when Inderal is administered to a nursing woman.

**Pediatric Use.** Safety and effectiveness in children have not been established.

**ADVERSE REACTIONS.** Most adverse effects have been mild and transient and have rarely required the withdrawal of therapy.

**Cardiovascular.** bradycardia, congestive heart failure, intensification of AV block, hypertension, paresthesia of hands, thrombocytopenic purpura, arterial insufficiency, usually of the Raynaud type.

**Central Nervous System.** lightheadedness, mental depression manifested by insomnia, lassitude, weakness, fatigue, reversible mental depression progressing to catatonia, visual disturbances, hallucinations, an acute reversible syndrome characterized by disorientation for time and place, short-term memory loss, emotional lability, slightly clouded sensorium, and decreased performance on neuropsychometrics.

**Gastrointestinal.** nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic colitis.

**Allergic.** pharyngitis and agranulocytosis, erythematous rash, fever combined with aching and sore throat, laryngospasm and respiratory distress.

**Respiratory.** bronchospasm.

**Hematologic.** agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura.

**Auto-immune.** In extremely rare instances, systemic lupus erythematosus has been reported.

**Miscellaneous.** alopecia, LE-like reactions, psoriasis-like rashes, dry eyes, male impotence, and Peyronie's disease have been reported rarely. Oculomucocutaneous reactions involving the skin, serous membranes and conjunctivae reported for a beta-blocker (practolol) have not been associated with propranolol.

**DOSAGE AND ADMINISTRATION.** Inderal LA provides propranolol hydrochloride in a sustained-release capsule for administration once daily. If patients are switched from Inderal tablets to Inderal LA capsules, care should be taken to assure that the desired therapeutic effect is maintained. Inderal LA should not be considered a simple mg for mg substitute for Inderal. Inderal LA has different kinetics and produces lower blood levels. Retitration may be necessary especially to maintain effectiveness at the end of the 24-hour dosing interval.

**HYPERTENSION—Dosage must be individualized.** The usual initial dosage is 80 mg Inderal LA once daily, whether used alone or added to a diuretic. The dosage may be increased to 120 mg once daily or higher until adequate blood pressure control is achieved. The usual maintenance dosage is 120 to 160 mg once daily. In some instances a dosage of 640 mg may be required. The time needed for full hypertensive response to a given dosage is variable and may range from a few days to several weeks.

**ANGINA PECTORIS—Dosage must be individualized.** Starting with 80 mg Inderal LA once daily dosage should be gradually increased at three to seven day intervals until optimum response is obtained. Although individual patients may respond at any dosage level, the average optimum dosage appears to be 160 mg once daily. In angina pectoris the value and safety of dosage exceeding 320 mg per day have not been established.

If treatment is to be discontinued, reduce dosage gradually over a period of a few weeks (see WARNINGS).

**MIGRAINE—Dosage must be individualized.** The initial oral dose is 80 mg Inderal LA once daily. The usual effective dose range is 160-240 mg once daily. The dosage may be increased gradually to achieve optimum migraine prophylaxis. If a satisfactory response is not obtained within four to six weeks after reaching the maximum dose, Inderal LA therapy should be discontinued. It may be advisable to withdraw the drug gradually over a period of several weeks.

**HYPERTROPHIC SUBAORTIC STENOSIS—80-160 mg Inderal LA once daily.**

**PEDIATRIC DOSAGE—**At this time the data on the use of the drug in this age group are too limited to permit adequate directions for use.

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What is the best method for demonstrating scaphoid lunate dissociation? An initial evaluation might include a well positioned PA film (without overlap of the distal radius and ulna) in neutral position and in ulnar flexion, along with a lateral view.<sup>4</sup>

Additional views are warranted in cases where there is a clinical suspicion of dissociation, but the initial films are unrevealing. Various authors have recommended supine (AP) views,<sup>3</sup> films taken with fist compression,<sup>1</sup> and tangential PA views.<sup>6</sup> As in the case presented here, these views may show the abnormality when conventional radiographs are inconclusive.

### Summary

In summary, rotatory subluxation is a condition that may lead to chronic disability of the wrist. Unfortunately, history, physical findings, and conventional radiographs are sometimes unrevealing. Timely diagnosis and prevention of long-term disability often depends on an awareness of the prob-

lem, a high clinical index of suspicion, and specially positioned radiographs. Of these specially positioned radiographs, an anterior posterior view of the wrist with the forearm fully supinated and with power grip compression may reveal otherwise obscure scapholunate dissociation.

★★★

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# Emotional Factors in the Patient's Illness

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Jackson, Mississippi

THE POPULAR CONCEPT of comprehensive health care suggests that physical and mental health should be considered simultaneously. Much health literature has proposed the physician has a responsibility to deal with the complete or whole patient. It has been stated that to arbitrarily separate the physical illness from its psychosocial context is to deny a large and growing body of knowledge indicating even greater ties between the two than generally accepted by the practicing physician.<sup>1</sup> If this is a critical issue in health care, does the average physician address the total patient? If the physician wants to be more comprehensive, how does he/she accomplish this?

The purpose of this article is to consider these questions. It is not intended to address any specific patient problem. Its purpose is to offer an approach that can be utilized in dealing with the stress-related psychosocial aspects of organic presentations.

The following is a description of the typical doctor-patient transaction together with a possible method for moving toward the provision of more complete health care.

A doctor enters an examining room, walks to the table, and says to his patient, "What brings you to see me, Barbara?"

The patient responds, "I've got a problem, Doctor. Everytime I urinate, I have a painful feeling down there."

The doctor follows by asking the patient exactly how it hurts? Where it hurts? When it hurts? How long has it hurt? And the doctor asks other questions of this nature. The patient goes on to broadly describe symptoms of dysuria.

After the patient's narrative and a few more investigative medical inquiries, the doctor says, "O.K., we'll have a look at you to see what might be causing this problem."

Then he carries out a thorough system-related examination. When the physical examination and the lab workup are complete, typically the doctor

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*The authors suggest a format for addressing the possibility of a psychological component in any physiological problem. They describe a few additional steps in the workup of a patient which can promote comprehensive care and reduce exacerbating or compounding effects of parallel psychosocial problems.*

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ties together subjective information he received in the interview with the patient, objective findings, and clinical evidence from the examination. From this the doctor makes a diagnosis which will suggest an approach to treatment based upon his medical training. Finally, the patient will be medically treated.

The encounter will likely conclude with the doctor saying, "Well, Barbara, it looks like you have cystitis, and I want you to take some medicine. I believe we can get you feeling better in a few days."

He may occasionally add, "Is there anything else?" But fundamentally he has completed the health care transaction when he makes the prescription.

If, in this story, Barbara takes the medicine, and if she hosted a pathogen so potent it had overpowered a normally adequate immune system, she will, more than likely, be over the problem in a short time. But what if Barbara's problem had a broader base? What if she harbors deep hostility and does not comply? What if she has become physically debilitated from an exhaustive attempt to cope with overwhelming demands in her life? Perhaps the stressors in her life have produced destructive health patterns such as loss of sleep, poor diet, intemperance or prolonged autonomic arousal. Or maybe there is a more direct tie between unusual life stress and one's potential to resist illness and disease.<sup>2</sup> Physiological science has come to accept that organisms which cannot cope with life's stresses, whether due to a weakness of the organism or the strength of the stressor, will even-

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## EMOTIONAL FACTORS / Continued

tually have some kind of breakdown of their most vulnerable body system.<sup>3</sup>

By considering the possibility of a psychosomatic problem we now have a health factor that was ignored, or overlooked, by Barbara's physician — a health factor that may make her problem refractory to the treatment the doctor administered. Barbara may not recover or she may develop frequent recurrences of the illness until such time that either the life situation changes or she becomes better able to deal with the offending life stresses. If neither of these promptly occur, the physiologic component may acquire the attribute of chronicity, by way of structural, biochemical and functional changes. Then, even with the resolution of the original psychologic problems, the condition remains pathophysiologically unchanged in spite of treatment. This same scenario could apply in hypertension, irritable bowel, various pain syndromes, or practically any health condition that is either precipitated or exacerbated by psychological factors.

*How can the doctor include this aspect of the presenting problem in his health care encounter with the patient? Possibly the most efficacious time would be after the patient has "recovered" from the physical examination, is dressed, and has become more relaxed.*

At that time the doctor might say, "Well, Barbara, I think I know what's causing the pain and I feel we can do something about it. How are things going with you otherwise?"

If the problem is strictly organic, the patient will generally welcome the opportunity to spend a few moments talking with her family physician. If Barbara reacts defensively or is reluctant to discuss anything further, she is possibly somewhat hostile, distressed, or the physician has not built an adequate base of trust and confidence. Since the focus of this paper is not upon hostility or specifically upon the doctor-patient communication process, let's assume Barbara is distressed, or in other words, not coping adequately with certain life stresses.

*How does the doctor encourage the patient's discussion of his/her distress? The use of a strong "feeling" word tends to focus the patient upon feelings and will often elicit information about any "bad" feelings he/she may be experiencing.<sup>4</sup> For example, the doctor may say, "Barbara, I know you're not feeling too well physically, but I feel you might also be troubled."*

The word "troubled" is a strong feeling word and is general enough to cover any negative emotion. Barbara will likely begin to discuss some life difficulties which, very often, will relate to interactions with a significant other. The doctor will occasionally have to allow a few moments for the patient to arrange what he/she is experiencing in a narrative he/she can express. The doctor's responsibility at this point is to facilitate more complete and open expression of troubling life situations and to remain appropriately silent at times.

Hypothetically, the patient might respond at this point, "Well, Dr. Jones, I don't know what to do. Bob's and my sex life is terrible!"

The doctor's response again must be facilitative in that it will reflect understanding both of the spoken message and the feelings that accompany the message. The response should also be brief so as to allow as much time as possible to having the patient provide information.

At this point the doctor might reflect, "You and Bob are having some upsetting sexual problems."

With this response, understanding has been conveyed and the patient was given assurance the physician feels the presentation is appropriate. Additionally, minimal time was spent with doctor-generated commentary. This type of interaction continues using effective communication methods.

*What does the physician look for as he searches for a complete picture of the patient's emotional problem? When the problem has been identified and outlined, the doctor needs then to assess to what degree it has impacted upon the patient's ability to function effectively in his/her various roles. Like ECG and x-ray interpretations, the best emotional yardstick that is applicable to any patient is a comparison of the patient with him/herself at another time. In this case, it is a comparison of Barbara's best usual functioning with her current level of functioning. Obviously one parameter, her physical health, is currently impaired. This is evident since she is significantly different in usual urinary tract function. However, physical health problems, such as a UTI, have norms in terms of physical signs and body chemistries; therefore, this is not quite analogous. The way Barbara is thinking, feeling, and behaving differently now from the way she thinks, feels, and behaves when not troubled, is the most useful way to assess her psychological functioning and to evaluate the impact of her current problem.*

The beginning assessment would be a specific definition of the concept "terrible sex life" as experienced by this patient. This would include a de-

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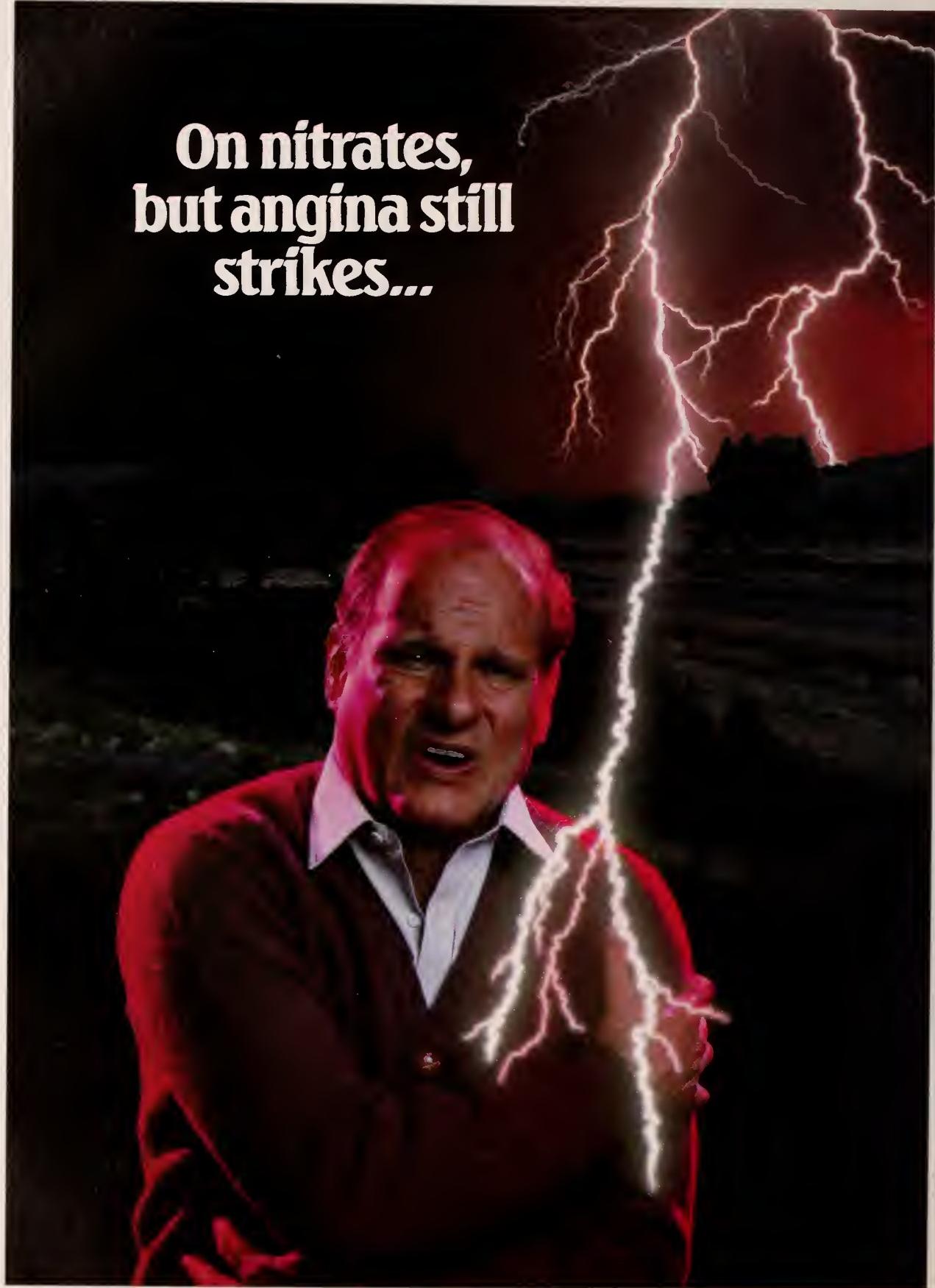
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Second, Isoptin spares patients the beta-blocker side effects that may compromise the quality of life.

With Isoptin, fatigue, bradycardia and mental depression are rare. Unlike beta blockers, Isoptin can safely be given to patients with asthma, COPD, diabetes or peripheral vascular disease. Serious adverse reactions with Isoptin are rare at recommended doses; the single most common side effect is constipation (6.3%).

Cardiovascular contraindications to the use of Isoptin are similar to those of beta blockers: severe left ventricular dysfunction, hypotension (systolic pressure <90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no artificial pacemaker is present) and second- or third-degree AV block.

So, the next time a nitrate is not enough, add Isoptin...for more comprehensive antianginal protection without side effects which may cramp an active life style.



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antianginal protection  
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**Contraindications:** Severe left ventricular dysfunction (see Warnings) hypotension (systolic pressure <90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no pacemaker is present), 2nd- or 3rd-degree AV block. **Warnings:** ISOPTIN should be avoided in patients with severe left ventricular dysfunction (e.g., ejection fraction <30%) or moderate to severe symptoms of cardiac failure. Control milder heart failure with optimum digitalization and/or diuretics before ISOPTIN is used. ISOPTIN may occasionally produce hypotension (usually asymptomatic, orthostatic, mild, and controlled by decrease in ISOPTIN dose). Occasional elevations of liver enzymes have been reported; patients receiving ISOPTIN should have liver enzymes monitored periodically. Patients with atrial flutter/fibrillation and an accessory AV pathway (e.g., W-P-W or L-G-L syndromes) may develop a very rapid ventricular response after receiving ISOPTIN (or digitalis). Treatment is usually D.C.-cardioversion. AV block may occur (3rd degree, 0.8%). Development of marked 1st-degree block or progression to 2nd- or 3rd-degree block requires reduction in dosage or, rarely, discontinuation and institution of appropriate therapy. Sinus bradycardia, 2nd-degree AV block, sinus arrest, pulmonary edema, and/or severe hypotension were seen in some critically ill patients with hypertrophic cardiomyopathy who were treated with ISOPTIN.

**Precautions:** ISOPTIN should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of overdosage. Studies in a small number of patients suggest that concomitant use of ISOPTIN and beta-blockers may be beneficial in patients with chronic stable angina. Combined therapy can also have adverse effects on cardiac function. Therefore, until further studies are completed, ISOPTIN should be used alone, if possible. If combined therapy is used, patients should be monitored closely. Combined therapy with ISOPTIN and propranolol should usually be avoided in patients with AV conduction abnormalities and/or depressed left ventricular function or in patients who have also recently received methyldopa. Chronic ISOPTIN treatment increases serum digoxin levels by 50% to 70% during the first week of therapy, which can result in digitalis toxicity. The digoxin dose should be reduced when ISOPTIN is given, and the patient carefully monitored. ISOPTIN may have an additive hypotensive effect in patients receiving blood-pressure-lowering agents. Disopyramide should not be given within 48 hours before or 24 hours after ISOPTIN administration. Until further data are obtained, combined ISOPTIN and quinidine therapy in patients with hypertrophic cardiomyopathy should probably be avoided, since significant hypotension may result. Adequate animal carcinogenicity studies have not been performed. One study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. **Pregnancy Category C.** There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor, and delivery only if clearly needed. It is not known whether verapamil is excreted in breast milk; therefore, nursing should be discontinued during ISOPTIN use.

**Adverse Reactions:** Hypotension (2.9%), peripheral edema (1.7%), AV block (3rd degree (0.8%), bradycardia (HR<50 min (1.1%), CHF or pulmonary edema (0.9%), dizziness (3.6%), headache (1.8%), fatigue (1.1%), constipation (6.3%), nausea (1.6%). The following reactions, reported in less than 0.5%, occurred under circumstances where a causal relationship is not certain: confusion, paresthesia, insomnia, somnolence, equilibrium disorders, blurred vision, syncope, muscle cramps, shakiness, claudication, hair loss, maculae, and spotty menstruation. Overall continuation rate of 94.5% in 1,166 patients. **How Supplied:** ISOPTIN (verapamil HCl) is supplied in 80 mg and 120 mg sugar-coated tablets. July 1982

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scription of how she sees both herself and her husband behaving and what she thinks and feels about that behavior.

The next appropriate inquiry would relate to when the current sexual problem developed followed by an investigation of the patient's recollection of their behavior, her thoughts and her feelings in those times when sex was not viewed as terrible.

Following this definition of the problem, its severity can be assessed by determining the problem's duration, its potential to preoccupy the patient, its negative effects on the patient's level of performance in noncouple functions, the amount of change it has produced in the patient's attitude toward her spouse and the relationship, and the patient's commitment to correct the problem.

To determine how refractory the problem may be, the doctor can inquire of the patient, "What do you think it would take to return your relationship to its pre-problem level?"

Or, more simply he might ask, "What will have to happen to make you and your husband happy again?"

And he could follow this by asking, "What will you and your husband have to do to make this come about?"

*What management approaches are available to the physician who chooses to address those problems?* Once the physician has determined the severity of the problem, he may decide to: (1) actively treat, (2) support, (3) refer, or perhaps (4) ignore the psychological factors. Actively treating this problem could involve couple therapy, individual counseling, or patient education. Supporting the patient might involve having the patient come back weekly to follow the physical complaint while allowing the patient to ventilate feelings about the problem. Referral could be to a psychiatrist, psychologist, or marriage counselor if the patient was in accord. Ignoring the problem would be appropriate if the physician felt the problem to be mild and if he/she felt past history suggested the strong possibility of an imminent spontaneous resolution.

### Summary

The purpose of this paper was not to address a single sexual problem but rather to provide a format for addressing the possibility of a psychological component in any physiological problem presenta-

tion and to promote comprehensive care. To summarize that format, the following protocol list of steps is provided:

1. Hear the physical problem presentation.
2. Complete the physical assessment and needed laboratory tests.
3. Allow the patient to relax briefly.
4. Using facilitative communication, search for a high priority, parallel psychological or social problem.
5. Thoroughly define this problem in terms of behavior, thoughts, and feelings.
6. Establish the patient's *best usual functioning* by describing his/her behavior, thoughts, and feelings in pre-problem times.
7. Determine the severity of the psychological component by assessing the problem's impact on the patient and by determining the problem's refractory nature through the patient's self report.
8. Determine disposition by treatment, support, referral, or calculated disregard.
9. Integrate knowledge gained through these steps with the medical care used to treat the identified physical problem.

The accomplishment of these steps in the patient visit will require slightly more time than if acute episodic care is given. However, literature indicates that addressing these problems will be, ultimately, more cost-effective in terms of reduced number of total patient visits.<sup>5</sup>

In primary care medicine philosophy, the concept of comprehensive health care is regularly promoted. By incorporating a few additional steps in the work-up of the patient, the physician can reduce the exacerbating or compounding effects of parallel psychosocial problems.



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## The President Speaking

### More About PPOs

**Ellis M. Moffitt, M.D.  
Jackson, Mississippi**

Last month we spoke in generalities regarding PPOs. This month I will go more into specifics of joining or forming a PPO.

The best question to ask at this point is, what are the advantages to physicians in forming a PPO? (1) In order to maintain or enlarge your patient base. PPOs offer the advantage of built-in referrals and an increase in the number of consultations. (2) You are able to practice fee-for-service medicine. (3) Collection problems will be reduced. (4) The ability to compete more effectively with other alternate health care delivery systems.

The physician-based PPO could take the form of a non-profit association, partnership, or corporation which in turn would contract with indemnity carriers, employers, benefits brokers, to provide a comprehensive range of services in return for rapid turnaround of claims. The physician could contract for hospital services or leave them out and just contract for outpatient services, but then direct patients to cost efficient institutions. A physician can belong to several PPOs and is not limited to the number he can belong to.

On the other hand, hospitals sponsor a PPO to: (1) increase their market share and occupancy rates; (2) improve cash flow; (3) respond to local demands and the demands of the medical staff; (4) compete more effectively with other alternate health care delivery systems.

Two methods have been tried by hospitals with some degree of success: (1) discount its charges for inpatient services and (2) prospective pricing on a case by case basis.

Employers enter into a PPO agreement because of their concern over rising health care costs and may ask a health insurance broker to negotiate a PPO arrangement with the local medical community. There are two instances of this in the state where negotiations are taking place now.

Administration of a PPO is much like that of any business. It has its board of directors which sets policy and also designs the delivery system, establishes membership criteria, and develops contracts, bylaws and agreements to which participating parties must adhere. The board considers provision of quality of care and cost effective medical services as well as the design of management information systems to collect data for the purpose of moni-

*(Continued on page 47)*

**JOURNAL OF THE  
MISSISSIPPI STATE  
MEDICAL ASSOCIATION  
VOLUME XXVI, NUMBER 2  
FEBRUARY 1985**

## **Mississippi Johnston and The Temple of Doom**

Next to God and family the most important thing to me is the practice of medicine. God is unchanging; my family is settled; and my temple of medicine seems unalterably doomed.

Despite our battles the private practice of medicine has been losing ground as evidenced by:

1. Physician's sense of enjoyment and fulfillment — Down.
2. Physician's apprehension over the future of medicine — Up.
3. Volume of office practice — Down.
4. Office overhead, expenses, and salaries — Up.
5. Volume of hospital practice — Down.
6. Competition — Up.
7. Gross and net income — Down.
8. Paperwork — Up.

(If this scorecard is not bad enough, then consider the following.)

9. Public opinion seems to be against us.
10. Third party payors abuse us.
11. Paraprofessionals, the state health department, etc. want to replace us.
12. HMOs, PPOs, etc. are close upon us.
13. Malpractice lawyers are intent on ruining us.
14. The federal bureaucracy seems destined to control us.

There is surely some hope for us through the foresight of our present leaders in the Mississippi State Medical Association — the special session of the House of Delegates on January 12, 1985 being a bright light in the darkness and gloom we are currently experiencing. They saw our need for help and set about to address the problems and seek a solution for them.

With their help, your help, and mine, like the

Phoenix, we shall rise again out of the ashes of this present temple of medicine.

JOSEPH E. JOHNSTON, M.D.  
Associate Editor

## **THE PRESIDENT SPEAKING**

*(Continued from page 46)*

toring cost. The board must establish peer and utilization review mechanisms and appoint these various committees. In order to have an effective PPO you must have a strong medical director and a strong peer review panel.

Now, let's talk about some other issues you need to be concerned with in the establishment of a PPO. The issue of medical liability. The potential liability arising from PPO participation is an area that requires close scrutiny by physicians concerning joining a PPO. In some PPO contracts, individual carriers have asked to have a "hold harmless" clause inserted which eliminated the PPO as a defendant in the proceedings. For example, suppose you had a patient in the hospital almost well enough to go home, but not quite. The PPO UR committee tells you to discharge the patient, which you do. The patient goes home and two days later dies. This is not a good clause to have in your contract. Do everything you can to avoid the "hold harmless" clause. Your own insurance carrier may not be liable in "contractual assumed liability." That is, where the physician agrees by written contract to provide medical care. Therefore, before signing any PPO contract, make sure you check and see if it has a "hold harmless" clause and contact your liability carrier to determine if your policy covers contractually assumed liability.

When you do sign with the PPO it is a contractual agreement. It is a binding contract. You agree to accept payment by the PPO as payment in full. You agree to comply with all the peer review and utilization mechanisms established by the PPO, and be

willing to designate the PPO as the agent in marketing services for the purpose of negotiating agreements with employer groups or union trusts.

Before you sign with any PPO, get an attorney familiar with contract law and antitrust law to review the contract. Never assume that you understand all the terms, clauses, and phrases, especially if written in legalese.

## Medico-Legal Brief

### Wrongful Life Suit Decided By N. J. Supreme Court

A patient born with congenital rubella syndrome may recover as special damages the extraordinary medical expenses attributable to his affliction, the New Jersey Supreme Court ruled.

The patient through his parents alleged that his physicians negligently failed to diagnose that his mother had contracted German measles in the first trimester of her pregnancy. As a result, he was born with congenital rubella syndrome.

Alleging the physicians negligently deprived his parents of the choice of terminating the pregnancy, he sought general damages towards his pain and suffering and for his parents' impaired ability to

cope with his problems. He also sought special damages attributable to the extraordinary expenses he will incur for medical nursing and other health care. A trial court dismissed his claim, and an appellate court affirmed.

On appeal, the Supreme Court concluded an infant patient or his parents may recover as special damages the extraordinary medical expenses attributable to his affliction during his infancy, and that the infant could recover those expenses during his majority. The court said he could not recover general damages for emotional distress or for an impaired childhood. It was too speculative to permit an infant patient to recover for emotional distress caused by birth defects when he claimed he would be better off if he had not been born.

The court said the parents could not recover those extraordinary expenses caused by his birth defects. The parents' claim was not derivative of the child's claim, and it was barred by the two-year statute of limitations. Even if they had filed a timely action, they could not recover for those same expenses, the court said.

The court remanded the case to the trial court for further proceedings. — *Procanik by Procanik v. Cillo*, 478 A.2d 755 (N.J. Sup. Ct., Aug. 1, 1984)



## Cost and Convenience

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# **1985 Health Issues Seminar Will Examine Quality Care and Reasonable Cost: "The Fine Line" and "The Bottom Line"**

As any group of physicians about major issues facing the practice of medicine, and you'll hear concerns about government regulation, competition, and alternate health care delivery systems. Underlying these specific issues is the often stated concern about ultimate effects of these entities on the quality of medical care and patient satisfaction. Another physician concern is whether or not these approaches will have the intended effect on costs of medical care.

Members of the MSMA will have an opportunity to participate in an intensive discussion of these matters during MSMA's 1985 Health Issues Seminar. All of these subjects and others are on the agenda for the seminar, March 1-2, at the Holiday Inn Downtown in Jackson.

The seminar begins at 7:00 p.m., Friday, March 1, with a reception and banquet. The banquet speaker, Rep. Wayne Dowdy, will outline "Issues Facing the 99th Congress." Congress currently is considering a number of proposals affecting the medical profession, including extending the freeze on Medicare reimbursements and further cuts in Medicaid funding. This summary of the mood of Congress toward health care issues is a discussion MSMA members and spouses will surely find informative.

The seminar's Saturday program begins at 7:30 a.m. with a breakfast. Leading off the morning's discussions will be James E. Davis, M.D., speaker of the AMA House of Delegates, who will present "How the AMA Views the Issues."

"Competition in Medicine" is the topic of discussion by John Kirchbaum, J.D., director of the AMA Division of Health Services and secretary of the AMA's Council on Medical Service.

On a related matter, Scott Share, vice president of marketing, Our Lady of Lourdes Medical Center in

Camden, New Jersey, will speak on "Practice Management and Marketing Health Services."

In coping with changes in traditional approaches to medical care delivery as well as other life changes, it is important to maintain a positive attitude. Helen Waltman, training coordinator for Blue Cross-Blue Shield of Mississippi, will lead a discussion on "Life Is Inside Out."

Completing the conference will be a "Washington Update" by Nancy Kintzel, assistant director, AMA Division of Medical Society Relations.

Registration fee for the seminar is \$20.00 per person, which includes the banquet and breakfast. Spouses are encouraged to attend.

The MSMA Auxiliary has scheduled its annual Legislative Day in conjunction with the MSMA Health Issues Seminar. Auxiliary members will register for the legislative workshop at 9:00 a.m., Friday March 1, at the Holiday Inn Downtown.

Bucky Murphy, MSMA assistant executive director and legal counsel, will conduct a briefing on health issues before the Mississippi Legislature. Afterward, there will be a tour of the Capitol and an opportunity to observe the legislators in session.

The legislative workshop will conclude with a luncheon at the Holiday Inn. The luncheon program includes a showing of a film on the Congressional debate on mandatory assignment under Medicare.

Auxiliary members are invited to attend the MSMA Health Issues Seminar that evening and the next morning.

## **House of Delegates Adopts Policy Statement on Health Care**

Mississippi physicians have made a commitment to maintaining quality medical care at a reasonable

cost. That commitment took expression in the form of an extensive policy statement adopted by the MSMA House of Delegates on Saturday, January 12, 1985.

In a special session of the House of Delegates, more than a hundred elected and appointed representatives of physicians from across the state met in Jackson to discuss a report of the MSMA's Board of Trustees.

The comprehensive report was the product of a select committee of the MSMA Board which studied causes for increased health care costs, problems within the system, and possible solutions.

The report, amended and adopted by the House, recommends numerous changes and new MSMA programs designed to ensure that quality medical care is provided through an efficient utilization of resources.

A key element of the recommended policy is the recognition that physicians alone cannot control many of the forces influencing the medical care system. A successful approach to addressing problems of cost and quality will involve not just physicians but also insurance companies, hospitals, government, business and the public.

Specifically, the MSMA recommends: changes in the structure of health insurance; changes in federal and state laws to reduce first dollar coverage and promote more disease prevention effort; changes in the medical liability system; ways in which physicians and hospitals can work together; and physician and public education measures.

The MSMA intends to work toward implementing the recommendations over the next two to three years. The first step in seeking implementation is already underway, and involves distributing the policy statement to business, state and community leaders throughout Mississippi. The MSMA is enlisting the support of these leaders and of related organizations in generating a cooperative effort to address an issue of mutual concern.

The complete report will be published in the March issue of JOURNAL MSMA.

Join IMPAC  
now

## 1985 Health Issues Seminar

### Quality Care and Reasonable Cost: "The Fine Line" and "The Bottom Line"

#### Friday, March 1

7:00 p.m. Reception and Banquet

*Issues Facing the 99th Congress*  
Rep. Wayne Dowdy

#### Saturday, March 2

7:30 a.m. Breakfast

*How the AMA Views the Issues*  
James E. Davis, M.D., speaker  
of the House of Delegates,  
AMA

*Competition in Medicine*  
John Kirchbaum, J.D., director,  
AMA Division of Health Services  
and secretary, AMA  
Council on Medical Service

*Practice Management and  
Marketing Health Services*  
Scott Share, vice president of  
marketing, Our Lady of  
Lourdes Medical Center,  
Camden, NJ

*Life Is Inside Out*  
Helen Waltman, training coordinator,  
Blue Cross-Blue Shield  
of Mississippi, Inc.

*Washington Update*  
Nancy Kintzel, assistant director,  
AMA Division of Medical  
Society Relations

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## POSTGRADUATE CALENDAR

March 14-16

SURGICAL FORUM XII

Holiday Inn Downtown, Jackson

March 1-22

NEUROLOGY SPRING SYMPOSIUM

Sheraton Regency, Jackson

March 23

SPRING SONIC SYMPOSIUM

University Medical Center, Jackson

April 24-27

FAMILY PRACTICE UPDATE

Sheraton Regency, Jackson

For registration information and a brochure, contact Continuing Education at the University of Mississippi Medical Center, 2500 North State Street, Jackson, MS 39216-4505, or call (601) 987-4914.

## PHYSICIANS NEEDED

Mississippi Disability Determination Services has need of physicians to serve as consultants to medical examiners. This is a part-time position. The basic requirements are: 1) an unencumbered license to practice medicine in Mississippi and 2) facility in the English language. Those interested should call Deborah Warriner, Medical Staff Coordinator. WATS-1-800-962-2230, Extension 2153; Jackson, 922-6811, Ext. 2153.

Physicians (especially specialists such as ophthalmologists, pediatricians, orthopedists, neurologists, etc.) interested in performing consultative evaluations (according to Social Security guidelines) should contact one of the following Medical Relations Officers: Henry Klar (Ext. 2276) or Martina Mayfield (Ext. 2227).

The DDS now has a program available for medical society meetings and hospital staff meetings. The purpose of this program is to explain how the disability determination process works, its historical background, its basis in legality and its documentation requirements. Any group interested in this presentation should contact John S. Barr, M.D., Ext. 2277.

# The Front Line Against Cancer

"New Issues in Colon and Breast Cancer" is a seminar focusing on these two prevalent cancer sites. Our goal is to provide information on new approaches to physicians involved in the front-line fight against cancer: general surgeons, family practice specialists and gynecologists, as well as those in oncological specialties.

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Vice Chairman, Department of Surgery  
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University of Florida, Gainesville, Florida

**Leonard L. Gunderson, M.D.**  
Department of Therapeutic  
Radiology, Mayo Clinic,  
Rochester, MN

**Robert H. Rudolph, M.D.**  
Head, Section of Medical  
Oncology, Mason Clinic  
Cancer Center, Seattle, WA

**Thomas A. Gaskin, M.D., FACS**  
Alabama Chairman, Field Liaison Program,  
Commission on Cancer, American College of  
Surgeons; Associate Director Medical Education,  
Baptist Medical Center Princeton

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Dept. of Internal Medicine  
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## PERSONALS

JAMES ACHORD of UMC presented a paper at the annual meeting of Southern Medical Association in New Orleans.

ORLANDO ANDY of UMC was a speaker at the New York meeting of the Eastern Association of Electroencephalographers in December.

WILLIAM BATES of UMC recently was a board examiner for the American College of Obstetrics and Gynecology in Chicago.

JOHN LARRY BLACK and HENRY GRADY MARLO, III, have associated with the Powell Clinic in Coldwater for the general practice of medicine.

MARY ANN COWART of Meridian has been named director of Women's Breast Care Clinic at Jeff Anderson Regional Medical Center.

JOHN GIBSON of UMC presented a paper at the annual meeting of Southern Medical Association in New Orleans.

FRANK GRUICH of Biloxi has been elected to a term as president of the Mississippi Gulf Coast Junior College Foundation.

JAMES HARDY of UMC presented a paper at the Southern Surgical Association meeting in West Palm Beach, Florida, in December.

JOHN R. HARPER of Taylorsville has been recertified as a diplomate of the American Board of Family Practice.

GLORIA E. HESTER has associated with the Medical Clinic of Biloxi for the practice of pediatrics.

ROBERT HOLBERT of Gautier has been elected chief of medical staff at Ocean Springs Hospital.

G. H. HOLLOWMAN of UMC taught an advanced cardiac life support course at Northeast Mississippi Medical Center in Tupelo in December.

ROBERT JORDEN of UMC attended the educational meetings committee of the American College of Emergency Physicians in Dallas, Texas.

RONALD KRUEGER of UMC taught a continuing education workshop in Hattiesburg recently.

HERBERT LANGFORD of UMC lectured to pharmacy students at the University of Mississippi in Oxford recently.

SUZANNE MILLER of UMC gave a presentation at the third annual regional meeting of cystic fibrosis centers in Shreveport, Louisiana, in December.

JERRY P. MOORE announces the opening of his practice of general medicine in the Leigh Clinic, 325 South Byrd Avenue, in Philadelphia.

JOHN MORRISON of UMC was guest speaker at meetings of the Seattle Washington Perinatal Association and the South Carolina Perinatal Association.

WILLIAM NICHOLAS conducted a seminar on diabetes in Gloster in November.

RAMESH PATEL of UMC presented a paper at the annual meeting of Southern Medical Association in New Orleans in November.

PAUL M. PAVLOV of North Biloxi has been named a diplomate of the American Board of Family Practice.

HERNANDO C. PAYNE announces the opening of his office for family practice at 1727 East Union Street in Greenville.

MAX PHARR of Jackson recently received a plaque of commendation for his service to the Methodist Children's Home.

THOMAS G. ROSS of Jackson was honored for his service to the Methodist Children's Home by the renaming of the campus in his name.

RICHARD H. SMITH of North Biloxi has been named a diplomate of the American Board of Family Practice.

ROBERT SMITH of Jackson has been named by Attorney General Pittman to membership on the Mississippi Health Care Commission.

W. LYNN STRINGER announces the relocation of his office to 10 Lakeland Circle in Jackson for the practice of general, microvascular and laser neurosurgery in association with GLEN C. WARREN.

JOHN D. WADE has associated with The Street Clinic in Vicksburg for the practice of radiology.

WINFRED WISER was a board examiner for the American Board of Obstetrics and Gynecology in Chicago in November.



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## NEW MEMBERS

BALASKE, J. PHILLIP, Heidelberg. Born Picayune, MS, Nov. 28, 1947; M.D., University of Mississippi College of Medicine, Jackson, 1969; interned and family medicine residency, University Medical Center, Jackson, MS, 1973-76; elected by South Mississippi Medical Society.

BISHOP, TERRELL P., Natchez. Born Russellville, AR, Aug. 20, 1953; M.D., University of Arkansas School of Medicine, Little Rock, 1978; one year internship, University of Arkansas, Little Rock; psychiatry residency, Duke University, Butner, NC, 1978-81; neurology residency, University Medical Center, Jackson, MS, 1983-84; elected by Homochitto Valley Medical Society.

BRAUN, JOHN C., Meridian. Born Greenville, SC, July 8, 1946; M.D., University of Alabama School of Medicine, Birmingham, 1979; interned and anesthesiology residency, University of Alabama Hospital, Birmingham, 1979-82; elected by East Mississippi Medical Society.

BULLOCK, RONALD A., Hattiesburg. Born Covington, KY, March 18, 1953; M.D., University of Mississippi School of Medicine, Jackson, 1981; interned and family medicine residency, University Medical Center, Jackson, MS, 1981-84; elected by South Mississippi Medical Society.

CANNON, SUSAN A. STRONG, Laurel. Born Vicksburg, MS, Sept. 28, 1954; M.D., University of Mississippi School of Medicine, Jackson, 1980; pathology residency, University Medical Center, Jackson, MS, 1980-84; elected by South Mississippi Medical Society.

CASEY, MICHAEL R., Laurel. Born Laurel, MS, Oct. 9, 1946; M.D., University of Mississippi School of Medicine, Jackson, 1971; internship and family practice residency, St. Elizabeth Medical Center, Dayton, OH, 1971-74; elected by South Mississippi Medical Society.

CONERLY, STEPHEN L., Hattiesburg. Born Nashville, TN, April 17, 1953; M.D., University of Mississippi School of Medicine, Jackson, 1979; interned and dermatology residency, Louisiana State University Medical Center, Shreveport and New Orleans, 1980-84; elected by South Mississippi Medical Society.

FORTENBERRY, RALPH M., Prentiss. Born Hattiesburg, MS, Sept. 30, 1932; M.D., University of Mississippi School of Medicine, Jackson, 1957; interned U. S. Naval Hospital, Oakland, CA, one year; training required by American Academy of Family Practice; elected by South Mississippi Medical Society.

GANDY, PAUL E., Tunica. Born Memphis, TN, March 3, 1953; M.D., University of Tennessee Center for Health Sciences, Memphis, 1979; interned and medicine residency, Baptist Memorial Hospital, Memphis, 1979-82; elected by Clarksdale and Six Counties Medical Society.

GOUGH, WALTER C., Drew. Born Pittsburgh, PA, April 24, 1943; M.D., Meharry Medical College, Nashville, TN, 1970; interned Mercy Hospital, Pittsburgh, PA, one year; anesthesiology residency, same, 1971-72; pediatric residency, Hubbard Hospital, Nashville, 1972-76; elected by Delta Medical Society.

HAIRE, W. C., JR., Batesville. Born Batesville, MS, Feb. 8, 1947; D.O., University of Health Sciences, College of Osteopathic Medicine, Kansas City, MO, 1983; interned Lakeside Hospital, Kansas City, MO, one year; elected by North Mississippi Medical Society.

HALL, CHARLES E., Jackson. Born Belzoni, MS, Oct. 15, 1953; M.D., University of Mississippi School of Medicine, Jackson, 1979; interned, medicine residency, and gastroenterology fellowship, University Medical Center, Jackson, MS, 1979-84; elected by Central Medical Society.

HARVEY, J. KENNETH, Tupelo. Born Tylertown, MS, Sept. 30, 1949; M.D., University of Mississippi School of Medicine, Jackson, 1977; internship and medicine residency, University Medical Center, Jackson, MS, 1977-80; elected by Northeast Mississippi Medical Society.

IRELAND, THOMAS A., McComb. Born Hinds County, MS, June 25, 1955; M.D., University of Mississippi School of Medicine, Jackson, 1981; interned and pediatric residency, Grady Memorial Hospital, Atlanta, GA, 1981-84; elected by South Central Medical Society.

LAMBERT, LEE ALAN, Ocean Springs. Born New Orleans, Nov. 20, 1953; M.D., Louisiana State University School of Medicine, New Orleans, 1981; anesthesiology residency, Ochsner Foundation Hos-

(Continued on page 57)

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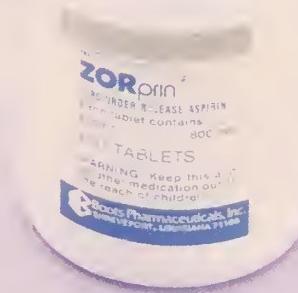
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*See brief summary of prescribing  
information on next page.*

# ZORprin® (aspirin) ZERO-ORDER RELEASE

Before prescribing see complete prescribing information. The following is a brief summary.

**INDICATIONS AND USE:** ZORprin® is indicated for the treatment of rheumatoid arthritis and osteoarthritis. The safety and efficacy of ZORprin® have not been established in those rheumatoid arthritic patients who are designated by the American Rheumatism Association as Functional Class IV (incapacitated, largely or wholly bedridden, or confined to wheelchair little or no self-care).

**CONTRAINDICATIONS:** ZORprin® should not be used in patients known to be hypersensitive to salicylates or in individuals with the syndrome of nasal polyps, angioedema, bronchospastic reactivity to aspirin, renal or hepatic insufficiency, hypoprothrombinemia or other bleeding disorders. ZORprin® is not recommended for children under 12 years of age; it is contraindicated in all children with fever accompanied by dehydration.

**WARNINGS:** ZORprin® should be used with caution when anticoagulants are prescribed concurrently since aspirin may depress the concentration of prothrombin in plasma and increase bleeding time. Large doses of salicylates may have hypoglycemic action and enhance the effect of the oral hypoglycemics; concomitant use therefore is not recommended. However, if such use is necessary, dosage of the hypoglycemic agent must be reduced. The hypoglycemic action of the salicylates may also necessitate adjustment of the insulin requirements of diabetics. While salicylates in large doses have a uricosuric effect, smaller amounts may reduce the uricosuric effect of uricosuric agents.

**USE IN PREGNANCY:** Aspirin can cause fetal harm when administered to pregnant women. Aspirin interferes with maternal and infant blood clotting and may lengthen the duration of pregnancy and parturition. Aspirin has produced teratogenic effects and increases the incidence of stillbirths and neonatal deaths in animals. If this drug is used during pregnancy, or if the patient becomes pregnant while taking this drug, the patient should be apprised of the potential hazard to the fetus. Aspirin should not be taken during the last 3 months of pregnancy.

**PRECAUTIONS:** Appropriate precautions should be taken in prescribing ZORprin® for patients who are known to be sensitive to aspirin or salicylates. Particular care should be used when prescribing this medication for patients with erosive gastritis, peptic ulcer, mild diabetes or gout. As with all salicylate drugs, caution should be exercised in prescribing ZORprin® for those patients with bleeding tendencies or those on anticoagulant drugs. Large doses of salicylates should be avoided in patients with clear evidence of carditis. In order to avoid exacerbation of disease or adrenal insufficiency, patients who have been on prolonged corticosteroid therapy should have their therapy tapered slowly rather than discontinued abruptly when ZORprin® (aspirin) is made a part of the treatment program. Patients receiving large doses of aspirin and/or prolonged therapy may develop mild salicylate intoxication (salicylism) that may be reversed by reduction in dosage. Salicylates can produce changes in thyroid function tests. Salicylates should be used with caution in patients with severe hepatic damage, preexisting hypoprothrombinemia, Vitamin K deficiency and in those undergoing surgery. Since aspirin release from ZORprin® is pH dependent, it may change in those conditions where the gastric pH has been increased via antacids, gastric secretion inhibitors or surgical procedures.

**ADVERSE REACTIONS:** Hematologic: Aspirin interferes with blood clotting. Patients with a history of blood coagulation defects or receiving anti-coagulant drugs or with severe anemia should avoid ZORprin®. Aspirin used chronically may cause a persistent iron deficiency anemia.

**Gastrointestinal:** Aspirin may potentiate peptic ulcer, and cause stomach distress or heartburn. Aspirin can cause an increase in occult bleeding and in some patients massive gastrointestinal bleeding. However, the greatest release of active drug from ZORprin® is designed to occur in the small intestine over a period of time. This has resulted in less symptomatic gastrointestinal side effects.

**Allergic:** Allergic and anaphylactic reactions have been noted when hypersensitive individuals have taken aspirin. The most common allergic reaction to aspirin is the induction of bronchospasm with asthma-like symptoms. Other reactions are hives, rash, angioedema, as well as rhinitis and nasal polyps. Fatal anaphylactic shock, while not common, has been reported.

**Central Nervous System:** Taken in overdoses, aspirin provides stimulation which may be manifested by tinnitus. Following initial stimulation, depression of the central nervous system may be noted.

**Renal:** Aspirin may rarely cause an increase in the severity of chronic kidney disease.

**Hepatic:** High doses of aspirin have been reported to produce reversible hepatic dysfunction.

**OVERDOSE:** Overdosage, if it occurs, would produce the usual symptoms of salicylism, tinnitus, vertigo, headache, confusion, drowsiness, sweating, hyperventilation, vomiting or diarrhea. Treatment for mild intoxication, emptying the stomach with an emetic, or gastric lavage with 5% sodium bicarbonate. Individuals suffering from severe intoxication should, in addition, have forced diuresis by intravenous infusions of saline and sodium bicarbonate or sodium lactate, dextrose solution. In extreme cases, hemodialysis or peritoneal dialysis may be required.

**HOW SUPPLIED:** ZORprin® tablets 800 mg, plain white capsule-shaped tablets. Bottles of 100 tablets.

**CAUTION:** Federal Law prohibits dispensing without prescription. Manufactured and distributed by Boots Pharmaceuticals, Inc., Shreveport, LA, 71106 USA.

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## NEW MEMBERS / Continued

pital, New Orleans, 1981-84; elected by Coast Counties Medical Society.

MASON, GARY L., Oxford. Born Booneville, MS, Dec. 14, 1948; M.D., University of Mississippi School of Medicine, Jackson, 1979; interned Baptist Memorial Hospital, Memphis, one year; elected by North Mississippi Medical Society.

MOFFITT, JOHN E., Jackson. Born Jackson, MS, March 8, 1956; M.D., University of Mississippi School of Medicine, Jackson 1981; interned and pediatric residency, University Medical Center, Jackson, MS, 1981-84; elected by Central Medical Society.

MURRAY, MARTHA JEAN, Jackson. Born Magnolia, MS, Nov. 30, 1953; M.D., University of Mississippi School of Medicine, Jackson, 1978; interned and psychiatry residency, University Medical Center, Jackson, MS, 1978-82; elected by Central Medical Society.

O'NEAL, MICHAEL R., Shubuta. Born Hattiesburg, MS, Nov. 8, 1948; M.D., University of Mississippi School of Medicine, Jackson, 1974; interned and family practice residency, Jackson Memorial Hospital, Miami, FL 1974-77; elected by East Mississippi Medical Society.

PAYNE, HERNANDO C., SR., Greenville. Born Mound Bayou, MS, Dec. 21, 1951; M.D., University of Mississippi School of Medicine, Jackson, 1977; interned and family practice residency, Tripler Army Medical Center, Honolulu, HI, 1977-79; elected by Delta Medical Society.

PEEL, CHERE H., Jackson. Born Memphis, TN, Dec. 29, 1954; M.D., University of Mississippi School of Medicine, Jackson, 1980; interned and medicine residency, University Medical Center, Jackson, MS, 1980-83; elected by Central Medical Society.

SMITH, RAY M., Biloxi. Born Kiln, MS, June 20, 1927; M.D., Tulane University School of Medicine, New Orleans, 1958; interned U. S. Navy Hospital, St. Albans, NY, one year; elected by Coast Counties Medical Society.

TEMPLE, DAVID M., Jackson. Born Meridian, MS, June 2, 1954; M.D., University of Mississippi School of Medicine, Jackson, 1979; interned and pediatric residency, University of Texas Health Science Center, Houston, 1979-84; elected by Central Medical Society.

THORNTON, JAMES LEE, New Albany. Born Grenada, MS, Aug. 4, 1935; M.D., University of Mississippi School of Medicine, Jackson, 1959; interned City of Memphis Hospitals, Memphis, one year; elected by Northeast Mississippi Medical Society.

## DEATHS

BENNETT, J. J., JR., Natchez. Born Ruston, LA, Jan. 6, 1919; M.D., Tulane University School of Medicine, New Orleans, 1943; interned and ob-gyn residency, Charity Hospital, New Orleans, 1943-49; died Dec. 18, 1984, age 65.

GOOGE, PAUL R., Charleston. Born Marietta, MS, Dec. 14, 1905; M.D., Tulane University School of Medicine, New Orleans, 1935; interned North Louisiana Hospital, Shreveport, two years; died Nov. 14, 1984, age 79.

WHITAKER, H. T., JR., Greenwood. Born Fayetteville, TN, Aug. 9, 1917; M.D., Vanderbilt University School of Medicine, Nashville, 1943; interned University of Iowa, Iowa City, one year; surgery residency, Charity Hospital, New Orleans, Vicksburg Hospital, Vicksburg, and Memorial Hospital, New York, NY, 1945-51; died Dec. 10, 1984, age 67.

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**FAMILY PRACTITIONERS & INTERNISTS** needed in West Central Alabama. OPPORTUNITIES FOR PHYSICIANS TO RECEIVE HELP WITH ESTABLISHING THEIR PRACTICE AND THEN OWN IT. Some practice locations very near Birmingham. Faculty appointment with Family Practice Center at University of Alabama in Tuscaloosa may be available for those qualified. *Options available of joining established practices or of working individually.* Salary \$50,000 to \$65,000 guaranteed until practice is self-sufficient. Generous fringe benefits include life, disability, health, retirement and malpractice insurance; two weeks continuing education; and three weeks annual leave. All equipment including X-Ray and lab, furniture, and supplies provided. ALL CLINIC EXPENSES COVERED. Management services including personnel, payroll, tax reports, and billing provided. If invited to visit, all expenses will be paid. All moving expenses covered. Please send C.V. to Frank Cochran, Health Development Corporation, P.O. Box 1486, Tuscaloosa, Alabama 35403, or call COLLECT (205) 758-7545 for more information.

EMPLOYMENT OPPORTUNITY. CHIEF MEDICAL OFFICER. Salary: negotiable. Location: Choctaw Indian Reservation in Pearl River Community, 8 miles west of Philadelphia, MS. Minimum Qualifications: Must have a degree of Doctor of Medicine from an approved U.S. or Canadian medical school or a degree of Doctor of Osteopathy from an approved school of osteopathy. Must obtain a full unrestricted license to practice medicine and surgery in the state of Mississippi. For more information contact James M. Cox, Mississippi Band of Choctaw Indians, Route 7, Box 21, Philadelphia, MS 39350; telephone: 601-656-2211, ext. 129.

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WANTED: EXPERIENCED EMERGENCY DEPARTMENT physician. BCLS/ACLS certified, prefer ATLS certification. Largest department volume in largest hospital in state. Fee for service. Malpractice paid. Send resumé to: Alan P. Brown, M.D., FACEP, Medical Director, Emergency Services Department, North Mississippi Medical Center, 830 South Gloster, Tupelo, MS 38801.

MISSISSIPPI DELTA, 252-bed hospital, emergency department with 18,000 visits. New ED opening early 1985; directorship available. Seeking EM residency trained or experienced emergency physicians with director's experience. Fee-for-service, CME, potential group incentive, individualized scheduling, paid malpractice. For more information contact Niki Balgini, Manager, Professional Relations, The Fischer Mangold Group, P.O. Box 788, Pleasanton, CA 94566; 800-227-2092 or in California (415) 484-1200.

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### 117th Annual Session

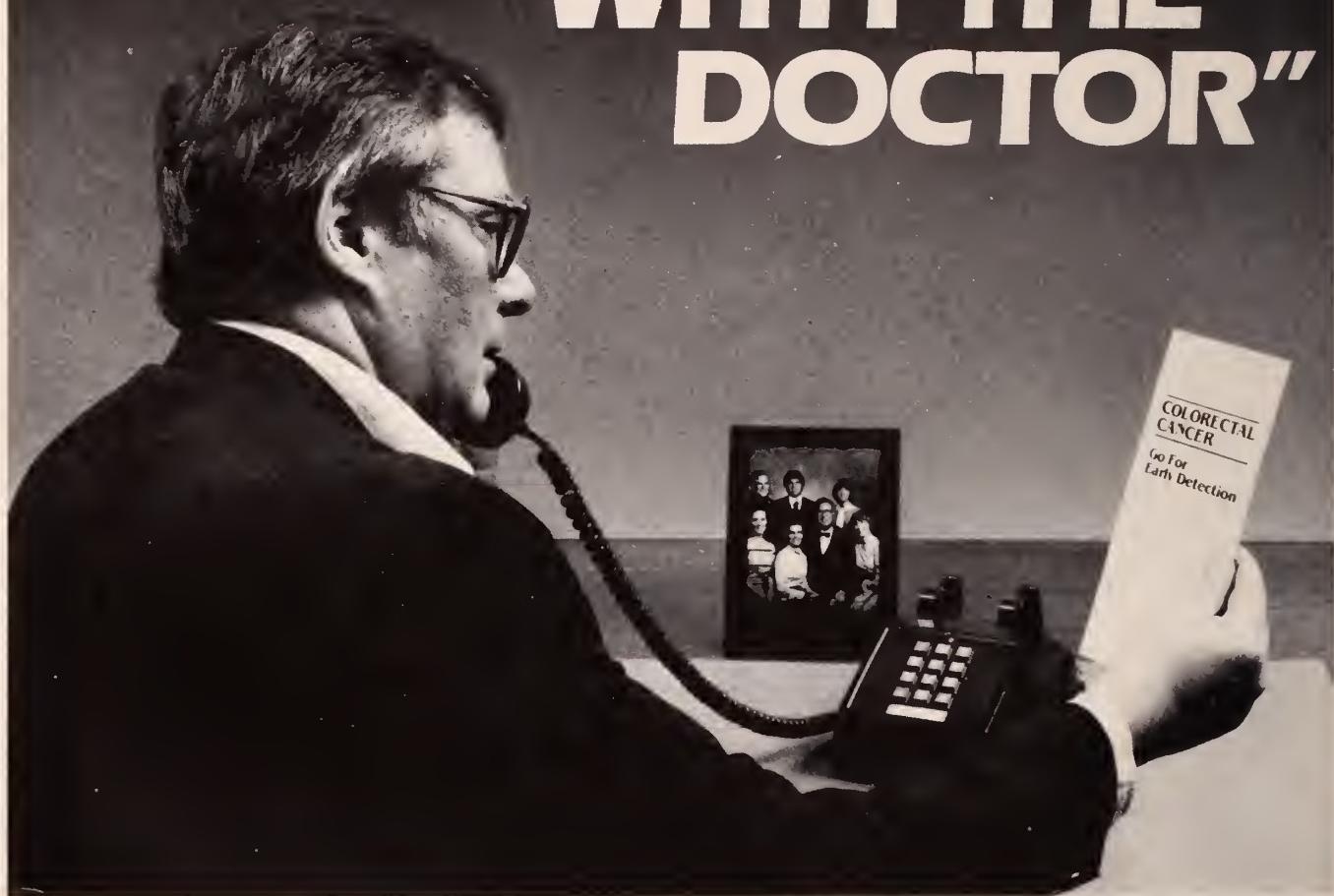
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Biloxi, Mississippi**

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Be prepared, Doctor. More patients will be asking about colorectal cancer. According to a survey\* conducted by the American Cancer Society, many people would like to receive more information about colorectal cancer, and 83% said they would want to be checked for it. Further, they are learning that this cancer can be detected *before* symptoms appear. The present cure rate is 44%. The cure rate *could* be as high as 75%, with early detection and appropriate management.

For asymptomatic persons the Society recommends annual digital rectal examination at age 40 and over; at age 50 and over, an annual stool blood test, as well as sigmoidoscopy every three to five years,

following two initial annual negative sigmoidoscopies.

We're here to help. You can reach us at your local American Cancer Society office or write to our Professional Education Department at National Headquarters, 90 Park Avenue, New York, N.Y. 10016. Ask about the Society's Colorectal Check program of professional and public education for the early detection of colorectal cancer.



\*"Cancer of the Colon and Rectum: Summary of Public Attitude Survey," *Cancer* 33:359-365, 1983 (Nov.-Dec.).

# COMPLETE LABORATORY DOCUMENTATION<sup>1-5</sup> ... EXTENSIVE CLINICAL PROOF



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- Patients usually awake rested and refreshed<sup>7-9</sup>
- Avoids causing early awakenings or rebound insomnia after discontinuation of therapy<sup>2,5,10-12</sup>

Caution patients about driving, operating hazardous machinery or drinking alcohol during therapy. Limit dose to 15 mg in elderly or debilitated patients. Contraindicated during pregnancy.

## DALMANE® flurazepam HCl/Roche

**References:** 1. Kales J et al: *Clin Pharmacol Ther* 12:691-697, Jul-Aug 1971. 2. Kales A et al: *Clin Pharmacol Ther* 18:356-363, Sep 1975. 3. Kales A et al: *Clin Pharmacol Ther* 19:576-583, May 1976. 4. Kales A et al: *Clin Pharmacol Ther* 32:781-786, Dec 1982. 5. Frost JD Jr, DeLucchi MR: *J Am Geriatr Soc* 27:541-546, Dec 1979. 6. Kales A, Kales JD: *J Clin Pharmacol* 3:140-150, Apr 1983. 7. Greenblatt DJ, Allen MD, Shader RI: *Clin Pharmacol Ther* 21:355-361, Mar 1977. 8. Zimmerman AM: *Curr Ther Res* 13:18-22, Jan 1971. 9. Amrein R et al: *Drugs Exp Clin Res* 9(1):85-99, 1983. 10. Monti JM: *Methods Find Exp Clin Pharmacol* 3:303-326, May 1981. 11. Greenblatt DJ et al: *Sleep* 5(Suppl 1):S18-S27, 1982. 12. Kales A et al: *Pharmacology* 26:121-137, 1983.

### DALMANE® flurazepam HCl/Roche

Before prescribing, please consult complete product information, a summary of which follows.

**Indications:** Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

**Contraindications:** Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patient to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

**Warnings:** Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

**Precautions:** In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

**Adverse Reactions:** Dizziness, drowsiness, light-headedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdose, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase, and paradoxical reactions, e.g., excitement, stimulation and hyperactivity.

**Dosage:** Individualize for maximum beneficial effect. Adults: 30 mg usual dosage; 15 mg may suffice in some patients. Elderly or debilitated patients: 15 mg recommended initially until response is determined.

**Supplied:** Capsules containing 15 mg or 30 mg flurazepam HCl.



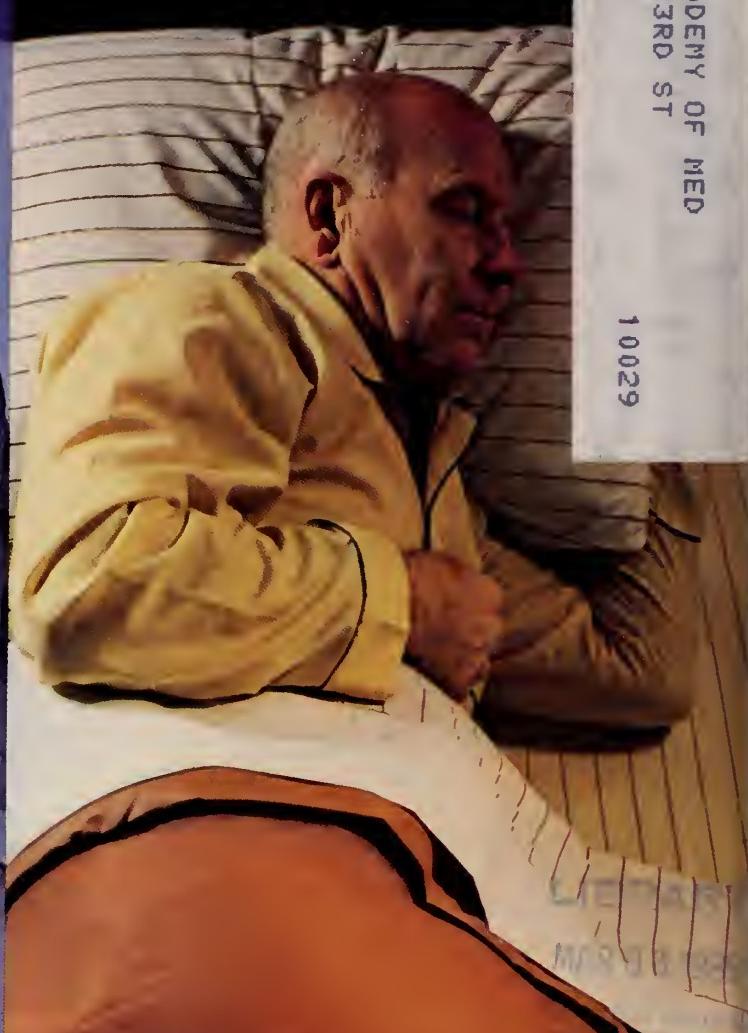
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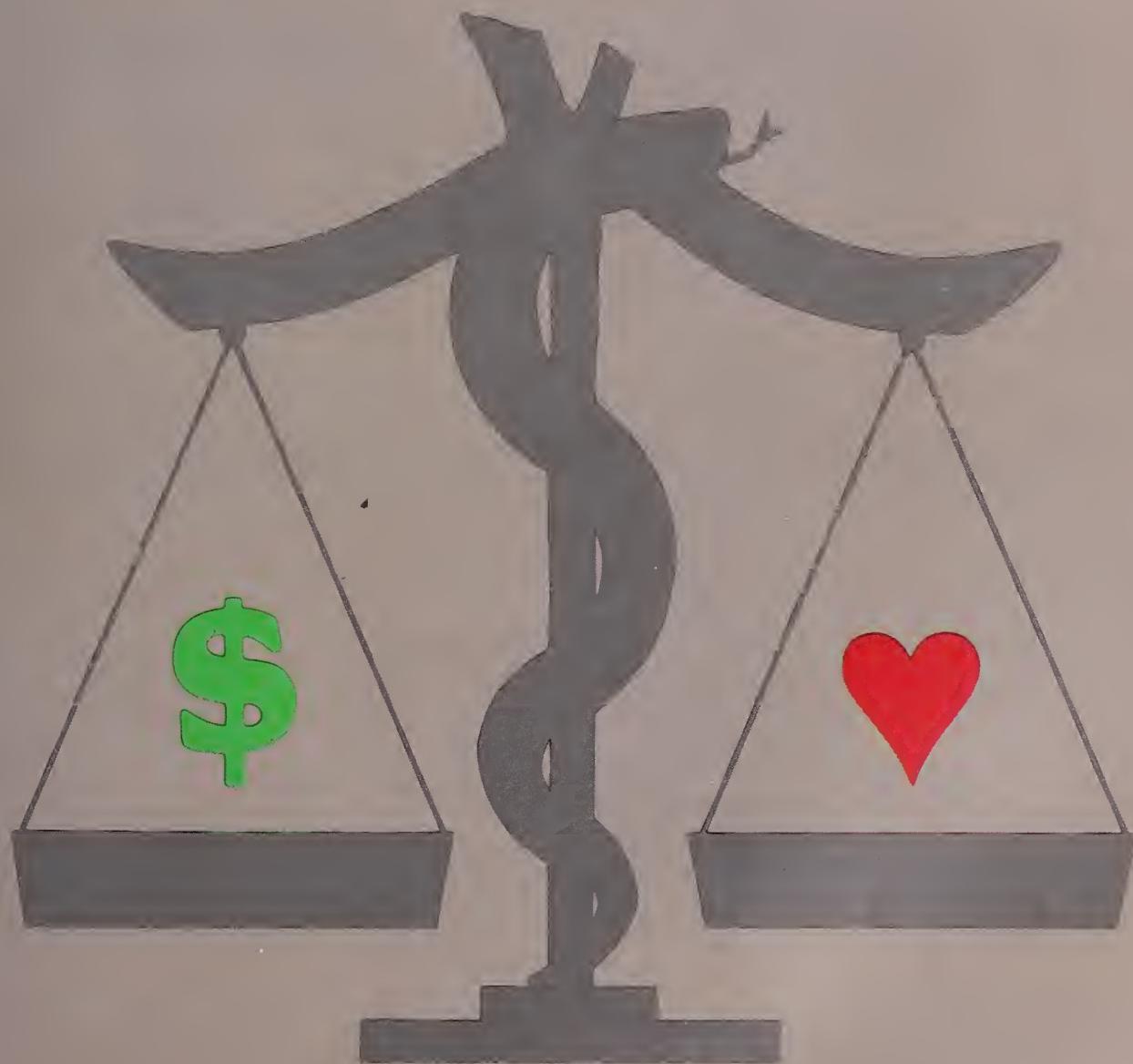
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See preceding page for references and summary of product information.  
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JOURNAL  
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BALANCING QUALITY CARE  
WITH REASONABLE COST:



A Report and Recommendations of  
the MSMA House of Delegates

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March 1985, Volume XXVI, Number 3

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## No One Is More Ill Than A Patient Who Tries To Hide His Illness From His Doctor.

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# NEWSLETTER

---

March 1985

Dear Doctor:

The AMA has submitted a proposal to the Health Care Financing Administration seeking a grant for the development of a relative value schedule for physicians' services. The proposal was in response to HCFA's request for a RVS for possible use in evaluating physician services under Medicare. The new RVS would cover physician services contained in the AMA's CPT-IV.

A professionally developed RVS would provide the basis for a fee schedule that could be an acceptable alternative to payment based on diagnosis-related groups, said a report adopted by the AMA House of Delegates in December. If HCFA accepts the proposal, the project would be led by a steering committee of about 30 representatives, primarily from the major medical specialties. A 10-member technical advisory panel, drawn from academia, the federal government, health consulting firms, and the health insurance industry, also would play a strong role in the project.

If you haven't returned your copy of the Physicians Professional Activities Census form, please plan to do so. All physicians in the U.S. will receive a copy of the form, which is distributed by the AMA every four years. Completion of the form insures accurate classification in official AMA records and in the American Medical Directory. All physicians - AMA members and nonmembers - are listed in the directory, as well as those no longer in active practice.

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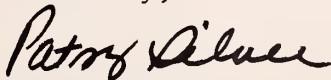
MSMA's Auxiliary was one of four receiving recognition at the recent AMA National Leadership Conference for success in registering doctors and their families to vote during the 1984 MEDVOTE campaign. Mrs. T. D. (Barbara) Blanton, MSMA Auxiliary president, accepted the award.

---

Joseph F. Boyle, M.D., president of the AMA, will be guest speaker during MSMA's 117th Annual Session, May 15-19, in Biloxi. Plans are being completed now for this year's meeting. Watch for your April issue of Journal MSMA, which will include the complete program, and mark these important dates on your calendar.

---

Sincerely,



Patsy Silver  
Managing Editor

Roche salutes

# MISSISSIPPI MEDICINE TODAY

## Na<sup>+</sup>-K<sup>+</sup> balancing act

"The sodium-potassium ratio in the diet should be considered a major controlling factor of blood pressure," says Dr. Herbert G. Langford of Jackson's University of Mississippi Medical Center.<sup>1</sup> Among cultures with a low incidence of hypertension, the diet consists of little sodium and large amounts of potassium from fruits and vegetables. As sodium intake increased in modern civilizations, potassium decreased. Dr. Langford thinks that low potassium may be considered an "unindicted co-conspirator in the hypertension crime." And he speculates that "efforts to increase potassium intake may be as feasible and fruitful as efforts to decrease our sodium intake."

## Cartoon classics—help for pain

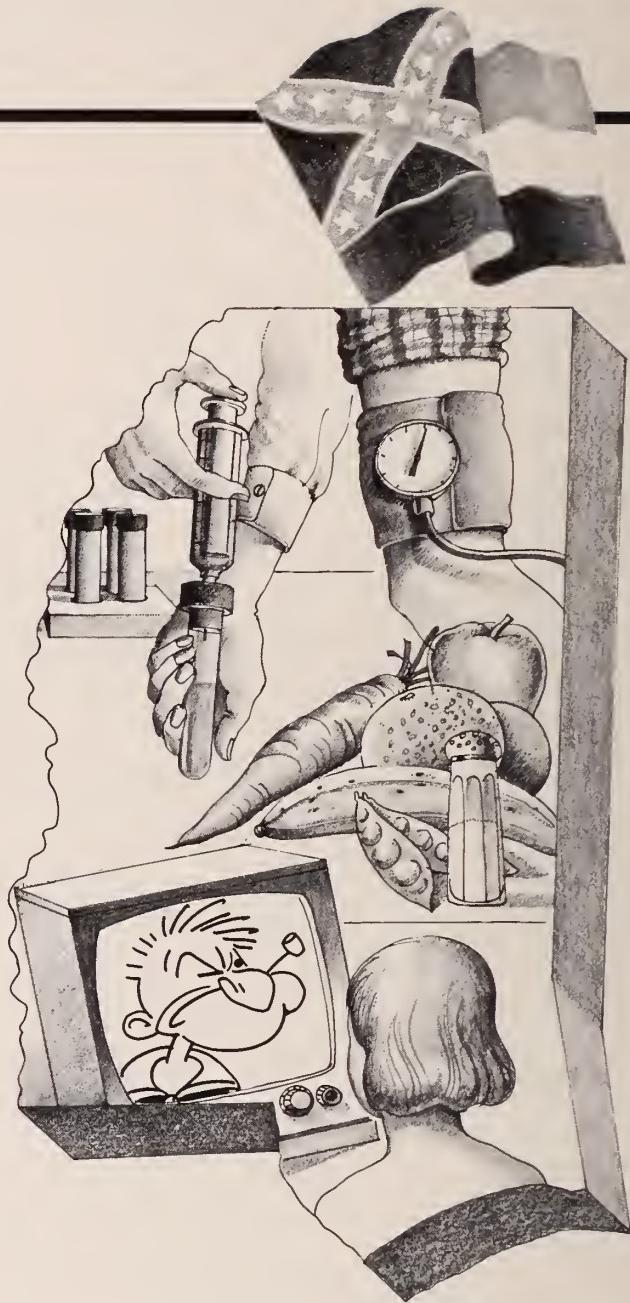
The hospitalized burned child, forced to cope with isolation, immobilization, extreme pain and disfigurement, manifests severe behavior problems during treatment. One of the most difficult management problems is with the child who must endure the excruciating pain involved in the open treatment of burns. The procedure, used for second-degree burns, involves exposure of the wounds, removal of burned skin and daily coverage with antibiotics. In order to avoid treatment, the child may scream, thrash about, cry and complain of pain—which generally worsens with time as nerve endings heal and sensation returns. Even experienced health-care workers have become faint while observing the suffering of these young patients.

Dr. Ronald S. Drabman and his colleagues in the Division of Psychology of the Department of Psychiatry and Human Behavior of the University of Mississippi Medical Center have tested a multicampanent behavioral approach for reducing pain behavior exhibited by severely burned children during the open treatment procedure.<sup>2</sup> The children, two young girls, were asked to choose a television cartoon program, either "Popeye" or "Bugs Bunny," and watch it closely during treatment. If there was a 25% or more reduction in pain behavior from the level at baseline sessions, the child was rewarded with a star placed on her chart. Both children exhibited less pain behavior during experimental sessions than during baseline sessions.

In keeping with ethical considerations and the appropriateness of the children's reaction to pain, the goal of the study was not to suppress or eliminate pain behavior completely. The researchers believe that their successful distraction-and-reward technique, the first experimental evaluation of behavior during open treatment, will point the way to much-needed clinical research in this area.

## 15-minute diagnosis of killer infection

Spontaneous bacterial peritonitis, a common and usually fatal infection among alcoholic cirrhotic patients, can now be



recognized in 15 minutes by means of a simple assay of ascitic fluid. Dr. James L. Achard and his University of Mississippi colleagues routinely screen cirrhotics for high lactic acid. This is more sensitive than conventional WBC counts and avoids many false positives. And, says Dr. Achard, most hospital labs are already equipped to do the test for one dollar.<sup>3</sup>

**References:** 1. Medical News. JAMA 248:2951, Dec 10, 1982 2. Kelley ML, et al: J Appl Behav Anal 17:147-158, Summer 1984 3. Medical World News, Nov 22, 1982, p. 15



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\*Feighner JP, et al: Psychopharmacology 61: 217-225, Mar 22, 1979.

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**Indications:** Relief of moderate to severe depression associated with moderate to severe anxiety.

**Contraindications:** Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use; then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

**Warnings:** Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses). Myocardial infarction and stroke reported with use of this class of drugs. Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

**Usage in Pregnancy:** Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage; withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).

**Precautions:** Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated; sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.

**Adverse Reactions:** Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs.

**Cardiovascular:** Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.

**Psychiatric:** Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

**Neurologic:** Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.

**Anticholinergic:** Disturbance of accommodation, paralytic ileus, urinary retention, dilation of urinary tract.

**Allergic:** Skin rash, urticaria, photosensitization, edema of face and tongue, pruritis.

**Hematologic:** Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

**Gastrointestinal:** Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.

**Endocrine:** Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female, elevation and lowering of blood sugar levels, and syndrome of inappropriate ADH (antidiuretic hormone) secretion.

**Other:** Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, porotid swelling.

**Overdosage:** Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

**Dosage:** Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single h.s. dose may suffice for some patients. Lower dosages are recommended for the elderly.

Limbitrol DS (double strength) Tablets, initial dosage of three or four tablets daily in divided doses, increased up to six tablets or decreased to two tablets daily as required. Limbitrol Tablets, initial dosage of three or four tablets daily in divided doses, for patients who do not tolerate higher doses.

**How Supplied:** Double strength (DS) Tablets, white, film-coated, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt), and Tablets, blue, film-coated, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500, Tel-E-Dose® packages of 100, Prescription Paks of 50.



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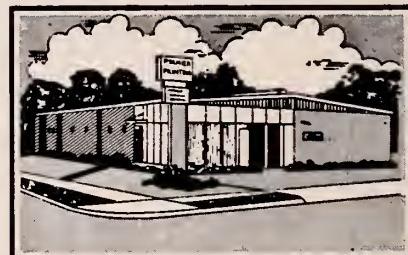


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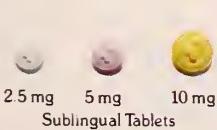
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Please consult full prescribing information before use. A summary follows:

**INDICATIONS AND USAGE:** SORBITRATE (isosorbide dinitrate) is indicated for the treatment and prevention of angina pectoris. All dosage forms of isosorbide dinitrate may be used prophylactically to decrease frequency and severity of anginal attacks and can be expected to decrease the need for sublingual nitroglycerin.

The sublingual and chewable forms of the drug are indicated for acute prophylaxis of angina pectoris when taken a few minutes before situations likely to provoke anginal attacks. Because of a slower onset of effect, the oral forms of isosorbide dinitrate are not indicated for acute prophylaxis.

**CONTRAINDICATIONS:** SORBITRATE is contraindicated in patients who have shown purported hypersensitivity or idiosyncrasy to it or other nitrates or nitrites. Epinephrine and related compounds are ineffective in reversing the severe hypotensive events associated with overdose and are contraindicated in this situation.

**WARNINGS:** The benefits of SORBITRATE during the early days of an acute myocardial infarction have not been established. If one elects to use organic nitrates in early infarction, hemodynamic monitoring and frequent clinical assessment should be used because of the potential deleterious effects of hypotension.

**PRECAUTIONS: General:** Severe hypotensive response, particularly with upright posture, may occur with even small doses of SORBITRATE. The drug should therefore be used with caution in subjects who may have blood volume depletion from diuretic therapy or in subjects who have low systolic blood pressure (e.g., below 90 mmHg). Paradoxical bradycardia and increased angina pectoris may accompany nitrate-induced hypotension. Nitrate therapy may aggravate the angina caused by hypertrophic cardiomyopathy.

Marked symptomatic orthostatic hypotension has been reported when calcium channel blockers and organic nitrates were used in combination. Dose adjustment of either class of agents may be necessary.

Tolerance to this drug and cross-tolerance to other nitrates and nitrites may occur. Tolerance to the vascular and antianginal effects of isosorbide dinitrate or nitroglycerin has been demonstrated in clinical trials, experience through occupational exposure, and in isolated tissue experiments in the laboratory. The importance of tolerance to the appropriate use of isosorbide dinitrate in the management of patients with angina pectoris has not been determined. However, one clinical trial using treadmill exercise tolerance (as an end point) found an 8-hour duration of action of oral isosorbide dinitrate following the first dose (after a 2-week placebo washout) and only a 2-hour duration of effect of the same dose after 1 week of repetitive dosing at conventional dosing intervals. On the other hand, several trials have been able to differentiate isosorbide dinitrate from placebo after 4 weeks of therapy and, in open trials, an effect seems detectable for as long as several months.

Tolerance clearly occurs in industrial workers continuously exposed to nitroglycerin. Moreover, physical dependence also occurs since chest pain, acute myocardial infarction, and even sudden death have occurred during temporary withdrawal of nitroglycerin from the workers. In clinical trials in angina patients, there are reports of anginal attacks being more easily provoked and of rebound in the hemodynamic effects soon after nitrate withdrawal. The relative importance of these observations to the routine, clinical use of isosorbide dinitrate is not known. However, it seems prudent to gradually withdraw patients from isosorbide dinitrate when the therapy is being terminated, rather than stopping the drug abruptly.

**Information for Patients:** Headache may occur during initial therapy with SORBITRATE. Headache is usually relieved by the use of standard headache remedies or by lowering the dose and tends to disappear after the first week or two of use.

**Drug Interactions:** Alcohol may enhance any marked sensitivity to the hypotensive effect of nitrates.

Iosorbide dinitrate acts directly on vascular smooth muscle; therefore, any other agent that depends on vascular smooth muscle as the final common path can be expected to have decreased or increased effect depending on the agent.

**Carcinogenesis, Mutagenesis, Impairment of Fertility:** No long-term studies in animals have been performed to evaluate the carcinogenic potential of this drug. A modified two-litter reproduction study in rats fed isosorbide dinitrate at 25 or 100 mg/kg/day did not reveal any effects on fertility or gestation or any remarkable gross pathology in any parent or offspring fed isosorbide dinitrate as compared with rats fed a basal-controlled diet.

**Pregnancy Category C:** Iosorbide dinitrate has been shown to cause a dose-related increase in embryotoxicity (increase in mummified pups) in rabbits at oral doses 35 and 150 times the maximum recommended human daily dose. There are no adequate and well-controlled studies in pregnant women. SORBITRATE should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

**Nursing Mothers:** It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when SORBITRATE is administered to a nursing woman.

**Pediatric Use:** The safety and effectiveness of SORBITRATE in children has not been established.

**ADVERSE REACTIONS:** Adverse reactions, particularly headache and hypotension, are dose related. In clinical trials at various doses, the following have been observed:

Headache is the most common (reported incidence varies widely, apparently being dose related, with an average occurrence of about 25%) adverse reaction and may be severe and persistent. Cutaneous vasodilation with flushing may occur. Transient episodes of dizziness and weakness, as well as other signs of cerebral ischemia associated with postural hypotension, may occasionally develop (the incidence of reported symptomatic hypotension ranges from 2% to 36%). An occasional individual will exhibit marked sensitivity to the hypotensive effects of nitrates and severe responses (nausea, vomiting, weakness, restlessness, pallor, perspiration, and collapse) may occur even with the usual therapeutic dose. Drug rash and/or exfoliative dermatitis may occasionally occur. Nausea and vomiting appear to be uncommon. Case reports of clinically significant methemoglobinemia are rare at conventional doses of organic nitrates. The formation of methemoglobin is dose related and, in the case of genetic abnormalities of hemoglobin that favor methemoglobin formation, even conventional doses of organic nitrate could produce harmful concentrations of methemoglobin.

**DOSAGE AND ADMINISTRATION:** For the treatment of angina pectoris, the usual starting dose for sublingual SORBITRATE is 2.5 to 5 mg, for chewable tablets, 5 mg, for oral (swallowed) tablets, 5 to 20 mg, and for controlled-release forms, 40 mg.

SORBITRATE should be titrated upward until angina is relieved or side effects limit the dose. In ambulatory patients, the magnitude of the incremental dose increase should be guided by measurements of standing blood pressure.

The initial dosage of sublingual or chewable SORBITRATE for prophylactic therapy in angina pectoris patients is generally 5 or 10 mg every 2 to 3 hours. Adequate controlled clinical studies demonstrating the effectiveness of chronic maintenance therapy with these dosage forms have not been reported.

SORBITRATE in oral doses of 10 to 40 mg given every 6 hours or in oral controlled-release doses of 40 to 80 mg given every 8 to 12 hours is generally recommended. The extent to which development of tolerance should modify the dosage program has not been defined. The oral controlled-release forms of isosorbide dinitrate should not be chewed.

**DOSAGE FORMS AVAILABLE:** Sublingual Tablets (2.5, 5, 10 mg), Chewable Tablets (5, 10 mg), Oral Tablets (5, 10, 20, 30, 40 mg), Sustained Action Tablets (40 mg).



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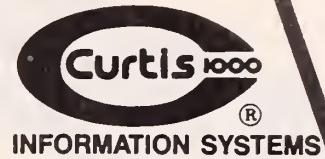


Be prepared, Doctor. More patients will be asking about colorectal cancer. According to a survey\* conducted by the American Cancer Society, many people would like to receive more information about colorectal cancer, and 83% said they would want to be checked for it. Further, they are learning that this cancer can be detected *before* symptoms appear. The present cure rate is 44%. The cure rate *could* be as high as 75%, with early detection and appropriate management.

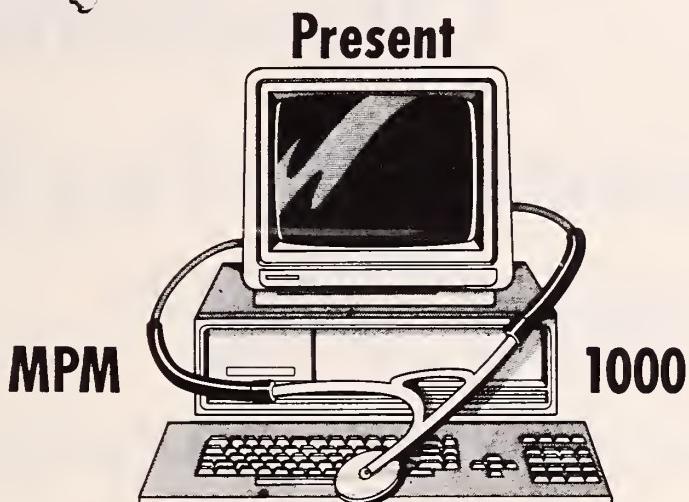
For asymptomatic persons the Society recommends annual digital rectal examination at age 40 and over; at age 50 and over, an annual stool blood test, as well as sigmoidoscopy every three to five years, following two initial annual negative sigmoidoscopies.

We're here to help. You can reach us at your local American Cancer Society office or write to our Professional Education Department at National Headquarters, 90 Park Avenue, New York, NY 10016. Ask about the Society's Colorectal Check program of professional and public education for the early detection of colorectal cancer.





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# DATELINE

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## Voluntary Fee Freeze Saved \$1.5 Billion

Chicago, IL - The strong compliance of physicians with the AMA's call for a voluntary fee freeze saved patients \$1.5 billion. Nearly 80% of all physicians voluntarily cooperated with the fee freeze. Physicians are urged to continue considering each patient's financial needs when setting charges - especially for the unemployed, the uninsured, and those on Medicare - and to accept reduced fees or none at all when warranted.

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## Hospitals Certified For Swing Bed Program

Jackson, MS - Seventeen of 24 hospitals surveyed for participation in the "swing bed" program have been certified. It is anticipated that 15 more will be certified this year, according to the Mississippi Health Care Commission. Effectiveness of the swing bed program can not be ascertained at this date, the MHCC says, but early indications are that it is meeting real needs for certain patients.

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## Regs Hit Rural Hospitals Hardest

Chicago, IL - Hospitals across the nation have cut utilization in response to tighter Medicare payment policies, but the hardest hit have been small hospitals in rural areas, according to a report in the Feb. 14 AM News. Average census for hospitals with less than 50 beds plummeted to 34%, compared with 65% for all hospitals. Hospitals with less than 25 beds were in the red last year. Of 224 such hospitals, 82% are in rural areas.

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## Reporting System For Licensure Actions

Chicago, IL - New procedures using the AMA Physician Masterfile will alert state licensing boards when a physician has had a licensure action taken against him or her in other states. Use of the computerized masterfile will speed communication between licensing bodies. In addition to the new procedure, AMA is working with state and federal agencies in investigating credentialing abuses.

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## Increasing Pressures For Cost Containment

Chicago, IL - Physicians overwhelmingly expect increasing pressure from government and business to contain costs. The AMA Department of Survey and Opinion Research reported that 87% of physicians in a survey said that government or business pressures on medicine to contain costs would increase in the near future, while only 1% said that the pressures would decrease; 53% report business more involved with health issues in their communities.

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ORIGINAL PAPERS

# Urticaria and Angioedema

BERNARD BOOTH, M.D.

Jackson, Mississippi

THERE HAVE BEEN remarkable advances in immunology and an increase in information concerning some of the rarer forms of physical urticaria.<sup>1, 2</sup> In addition, biopsy studies, histamine levels, and a host of other screening procedures have now been performed in a large number of patients with other types of urticaria.<sup>3-5</sup> Despite this, there remains no universal or unifying hypothesis for either the pathophysiology or the etiology of urticaria. Acute urticaria usually disappears spontaneously regardless of the therapeutic approach. Conversely, chronic urticaria appears to remain a clinical syndrome with multiple precipitating causes, multiple proposed mechanisms, and multiple, frequently ineffective, therapeutic approaches. An etiologic agent or precipitating cause is established in only 5 to 20% of patients after receiving a thorough evaluation.<sup>6, 7</sup>

The clinical approach to such patients varies widely. However, almost all authorities agree on the first therapeutic and diagnostic maneuver. "All medications should be considered a potential cause of urticaria and angioedema, and any unnecessary ones should be promptly eliminated. These include aspirin, vitamins, cold tablets, hemorrhoid suppositories, birth control tablets and others."<sup>7</sup>

This policy seems to be universally endorsed but seldom applied.

## Methods

The charts of 50 consecutive patients with chronic urticaria were reviewed. All but five had been referred by physicians to the author for an allergic evaluation. All but two patients had previously seen physicians specifically for urticaria. Only patients

Dr. Booth is engaged in the private practice of allergy and immunology in Jackson, MS.

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*The author reports on a review of charts of 50 consecutive patients with chronic urticaria. He comments that physicians should remember to question patients about nonprescription as well as prescription medications. He reminds that the possible causes of chronic urticaria are innumerable and urges against beginning an extensive search for a cause before the possibility of a drug induced reaction has been excluded.*

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whose urticaria had persisted over eight weeks were included in the review.

## Results

Forty-five of the patients were taking medication for the treatment of their urticaria. These medications were primarily antihistamines, but many patients had received epinephrine and corticosteroids. Some had received cimetidine and some minor tranquilizers or antidepressant medications. Only five of the 50 patients had never taken any medication specifically for the treatment of their urticaria.

Excluding medication for the treatment of their urticaria, other medications had been taken regularly by 40 of these patients, usually daily, but at least once weekly until the day of evaluation. Thirty-seven of these patients were taking nonprescription, over-the-counter medications at least once each week. Twenty-three were taking medications regularly by prescription. Though 48 of the 50 patients had seen physicians specifically for urticaria, only ten patients had been instructed and were no longer taking medications regularly. Twenty patients con-

tinued to take both nonprescription and prescription medications on a regular basis.

### Discussion

Retrospective review of charts could not make available some very important information. How many of these patients were told by previous physicians to stop all medications? Many of them had definitely been told to stop all medications but for numerous reasons had not. Many patients denied taking any medications, and then, after specific questioning, admitted taking aspirin or other pain relievers, laxatives, birth control pills, vitamins, cold preparations, or hemorrhoid suppositories. Many patients mistakenly believed that a medication they had taken regularly for years, or one that had been taken previously without difficulty, could not be the sudden source of difficulty. Unlike physicians most patients are startled when confronted with the fact that each exposure to any medication increases the likelihood of an adverse reaction.

Obviously, as physicians we must remember to question patients more closely regarding nonprescription as well as prescription medications. We must continue to try to educate patients regarding the

innate risks in taking any medication. Specifically, we should remember that the possible causes of chronic urticaria are innumerable. Searching for the rarer causes of urticaria can exhaust patients physically, emotionally and financially. In addition, such an evaluation is usually unsuccessful. Such a search may be necessary in rare cases. Certainly it is inappropriate to begin such an evaluation before the possibility of a drug induced reaction has been excluded.



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# Radiological Seminar CCXLII: Role of Scintigraphy and Ultrasound In Evaluation of Scrotal Mass

BHARTI R. PATEL, M.D.

Jackson, Mississippi

SCROTAL MASSES can arise from various pathological processes of the testis, epididymis, spermatic cord and vessels, testicular appendage and tunical vaginalis. A patient with a scrotal mass may present with acute painful scrotal swelling or chronic scrotal swelling. Chronic scrotal swelling may be painless, or it may be responsible for some discomfort in the scrotum. Until 1973, before the availability of scrotal scanning by scintigraphic procedures or ultrasound modality, diagnostic procedures for scrotal mass were limited to urinalysis, physical examination and history. In those days the motto "when in doubt, explore" resulted in unnecessary scrotal surgery in many patients.

The introduction of radionuclide scrotal scintigraphy and ultrasound imaging of scrotal contents greatly assisted in the evaluation of acute and chronic scrotal masses.

## Acute Painful Scrotal Mass

Acute painful scrotal mass can result from the following pathological conditions:

1. Acute testicular torsion
2. Acute epididymitis and/or orchitis
3. Trauma (hematoma of testis or injury to testis)
4. Torsion of testicular appendage
5. Thrombosis of scrotal vein
6. Incarcerated hernia

In the patient with acute painful scrotal mass, the vast majority will be due to either torsion of testis or acute epididymitis and/or acute orchitis. Torsion of testis is the most common scrotal pathology in pediatric age group patients and young adults. Epididymitis is the more common cause for acute painful scrotal mass in patients in their twenties. Clinically, it may not be possible to differentiate between these two conditions.

The distinction between testicular torsion and acute epididymitis is not always possible because of overlapping ages of peak incidence and shared symptoms. It is important to make quick diagnosis of testicular torsion for salvation of testicular function. Immediate surgery is indicated in testicular torsion. Scrotal scintigraphy can be performed as an emergency procedure and is an ideal procedure for evaluation of acute scrotal swelling. It offers about 95% accuracy in diagnosing acute testicular torsion and takes only about ten minutes of imaging time.  $^{99m}$ Tc pertechnetate is used intravenously for the procedure. A rapid sequence blood flow study of scrotum is followed by static scrotal image. Bilaterally symmetrical scrotal perfusion would be noted on scrotal blood flow study. Bilaterally symmetrical activity would be noted in scrotum on static image.

Normally the blood flow to the scrotum and its contents is very small. To facilitate the evaluation of the scrotal scintiscan, either separating thighs or placing a lead shield under the scrotum and covering upper thighs with a lead shield should be done during the study, whenever possible. Normal testicular activity is of approximately the same intensity as the soft tissues of the thigh. However, when the scrotum overlies the thigh, the scrotal activity may appear more because of superimposed thigh and scrotal activity.

## Testicular Torsion

Testicular torsion classically presents in the pre-pubertal or the adolescent male with sudden onset of severe testicular pain on the affected side. Scintigraphic findings are characteristic. A static scrotal scintiscan will demonstrate an oval area of absent activity in the region of torsed testis. Perfusion of the torsed testis is slightly decreased or may not be appreciated on rapid sequence blood flow study. Approximately six hours after torsion, one would see a rim of increased activity surrounding the photon deficient area (see Figure 1). The rim of

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From the Department of Radiology, University Medical Center,  
Jackson, MS.

increased activity represents scrotal hyperemia around the torsed testis. The intensity of increased activity of the rim may vary depending on the time interval after the testicular torsion.

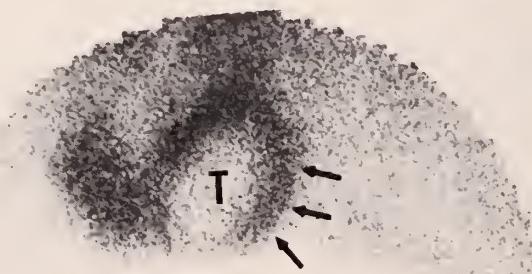
#### **Acute Epididymitis or Epididymo-orchitis**

Inflammatory lesions constitute the majority of diseases affecting the epididymis in post pubertal males. About 50% of the patients with acute epididymitis have fever and dysuria and have abnormal urinary findings. The radioisotope rapid sequence blood flow study shows evidence of hyperemia on the symptomatic side of the scrotum (see Figure 2A) and subsequent static image also shows increased activity in the same hemiscrotum (see Figure 2B). Increased activity in the spermatic cord region, on

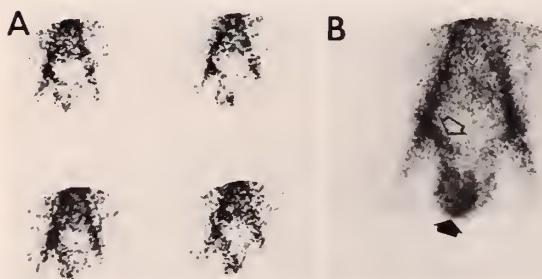
the affected side, represents increased perfusion through testicular and deferential artery. This finding is noted on rapid blood flow study and static images of scrotal scintigraphy. In patients with epididymitis, exploratory surgery can be avoided by accurate diagnosis provided by scintigraphy.

#### **Testicular Trauma**

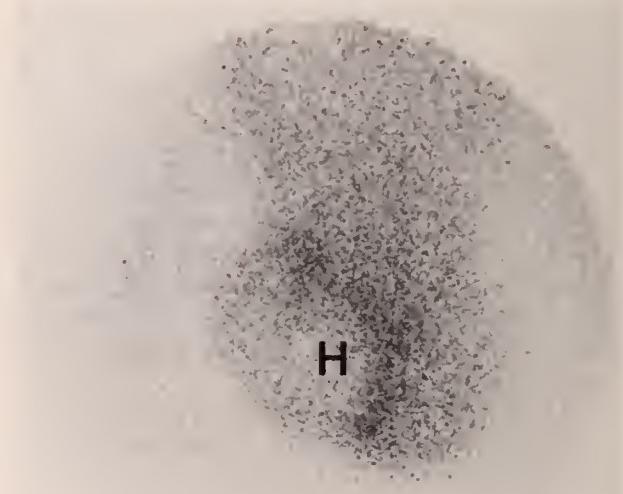
The scintigraphic findings may vary according to severity of the injury to the scrotum. A patient may have hematoma following injury to the testis which



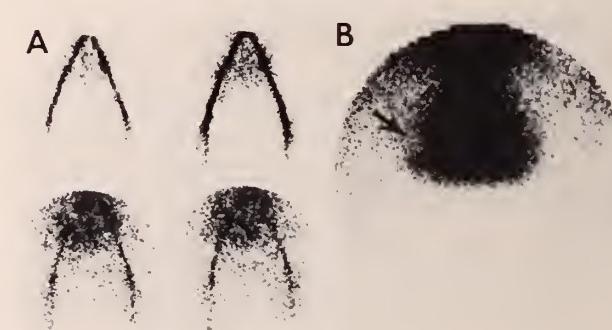
*Figure 1. Testicular torsion. The static image of the scrotum shows photon deficient area in the left hemiscrotum representing torsed left-testis (T) which is surrounded by rim of increased activity (arrows) representing scrotal hyperemia. Note the superimposed right thigh and right hemiscrotal activity in normal right testis.*



*Figure 2. Acute epididymo-orchitis. Rapid sequence blood flow study of the scrotum (A) shows increased blood flow through right testicular and right deferential artery and right hemiscrotum. Static image of the scrotum (B) shows increased activity in the right spermatic cord region (open arrow) and increased activity in right hemiscrotum (solid arrow).*



*Figure 3. Testicular trauma. Hematoma in right hemiscrotum (H) is represented by photon deficient area in the right hemiscrotum. Patient had sustained injury to right hemiscrotum a few hours before the scrotal scintiscan.*



*Figure 4. Torsion of testicular appendage. No abnormality is noted in blood flow study of scrotum (A). A small area of photon deficiency in torsed right testicular appendage (arrow) is shown on the static image of the scrotum (B).*

may be responsible for the photon deficient area seen in the affected hemiscrotum (see Figure 3). In a patient with a history of trauma, careful correlation of the scrotal scintiscan with the history of the type and severity of the trauma and duration of interval after trauma is valuable. Ultrasound modality can be very helpful for further evaluation of scrotal pathology in patients with scrotal trauma.

#### Torsion of Testicular Appendix

Clinically this condition may be mistaken with subacute epididymitis. As the symptoms may be very mild in many patients, the condition may frequently escape diagnosis. It is primarily a disease of adolescents. It represents torsion of the most cranial portion of paramesonephric duct. It is attached to the upper pole of the testis. It may show a small photon deficient area on a scrotal static scintiscan (see Figure 4B). No particular abnormality is usually noted in rapid sequence blood flow study of the scrotum (see Figure 4A). If correctly diagnosed, excision of

torsed testicular appendage would provide prompt symptomatic relief.

#### Sonography of Scrotal Mass

In ultrasound the recent development of Doppler ultrasonic flowmeters has provided a sensitive, reliable technique for assessing blood flow to the testis which has increased diagnostic accuracy of torsion of testis and acute epididymitis over clinical examination. The accuracy rate of Doppler studies in evaluating acute torsion versus acute epididymitis is reported to be up to 88%. Scintiscan has higher accuracy rate in evaluation of acute testicular torsion versus acute epididymo-orchitis. For evaluation of chronic scrotal mass, scintiscan has very little to offer. Ultrasonography is found to be helpful in evaluation of chronic scrotal masses in many patients. For evaluation of scrotal trauma, ultrasound is indicated.

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## PHYSICIANS NEEDED

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Physicians (especially specialists such as ophthalmologists, pediatricians, orthopedists, neurologists, etc.) interested in performing consultative evaluations (according to Social Security guidelines) should contact one of the following Medical Relations Officers: Henry Klar (Ext. 2276) or Martina Mayfield (Ext. 2227).

The DDS now has a program available for medical society meetings and hospital staff meetings. The purpose of this program is to explain how the disability determination process works, its historical background, its basis in legality and its documentation requirements. Any group interested in this presentation should contact John S. Barr, M.D., Ext. 2277.



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# Quality Medical Care at a Reasonable Cost

PHYSICIANS IN Mississippi have made a commitment to maintaining quality medical care at a reasonable cost. Over the past year, a concentrated effort by the Mississippi State Medical Association has been underway to determine causes for increased costs, problems within the system, possible solutions, and finally, recommendations for changes to insure that quality medicine is provided through an efficient utilization of resources.

Physicians alone cannot control many of the forces influencing the medical care system and therefore will work for a more broadly based approach to change in cooperation with hospitals, business, government, and the public.

Recommendations made by the Mississippi State Medical Association include: (1) changes in the structure of health insurance, (2) changes in federal and state laws to reduce first dollar coverage and promote more disease prevention efforts, (3) changes in the medical liability system, (4) ways in which physicians and hospitals can work together, and (5) physician and public education measures.

It is the intention of the Mississippi State Medical Association to work toward implementing the recommendations of this report over the next two to three years.

This report is being distributed to business, state and community leaders in Mississippi as an official policy statement of the Mississippi State Medical Association.

## Summary

Both public and private concern with the cost of medical care has steadily grown over the past 15 to 20 years. Employers' payments for health care benefits have increased dramatically. Federal and state government budgets for health care spending have grown. Individuals face higher medical bills.

Mississippi physicians have undertaken the development of a comprehensive program to slow the rate of increase in medical care costs. This report presents the recommendations of the Mississippi State Medical Association (MSMA). Several basic principles were used in

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*In this comprehensive report, adopted by the House of Delegates at a special session January 12, 1985, the Mississippi State Medical Association announces recommendations for numerous changes in the health care delivery system. The recommendations, designed to ensure that quality medical care is provided through efficient utilization of resources, are the result of an extensive MSMA study examining factors that contribute to the escalating costs of medical care. The report is being distributed to business, state and community leaders in Mississippi as an official policy statement of the MSMA.*

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developing those suggestions. These are: placing reliance on economic incentives rather than government regulation of prices and utilization, recognizing and addressing the impact of tax laws, supporting quality of health care, increased financial responsibility by patients for the care they receive, education of providers and consumers in cost effective behavior and having all parties in the health care system sharing the impact of cost containment.

There are many reasons why health care costs have increased. Some of the more important are general inflation, medical care inflation, how health care is paid for, the movement to a service economy, the increasing and aging population, technology and the legal climate. Between 1974 and 1982 general inflation and population growth accounted for approximately 67% of the increase in health care spending, leaving the other factors to account for 33%. The potential for medical care cost containment can thus be seen as somewhat limited. It is the view of the MSMA that health care spending will continue to increase as a proportion of gross national product. At the same time, the implementation of the recommendations in this report may slow the rate of increase.

In developing its ideas, the MSMA first identified numerous problems in the medical care field, relating to physicians, hospitals, consumers, technology, third-party payors and medical liability. Proposals to solve these problems are presented in six areas. The areas and recommendations are listed below:

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Adopted by the House of Delegates of the Mississippi State Medical Association, January 12, 1985, Jackson, MS.

## **Recommendations**

### ***Changes in the Structure of Health Insurance***

- All medical insurance policies or benefit plans offered by employers should contain significant cost sharing in the form of deductibles and coinsurance and provide catastrophic coverage.
- MSMA supports utilization review of health services by practicing physicians.
- Lower medical insurance premiums or rebates should be given to people who follow healthy lifestyles.
- Legislation should be enacted to give statutory guidance for contracts between alternative delivery systems, patients, and physicians and to prohibit hold-harmless clauses.
- MSMA supports third-party insurance plans that wish to develop fee or indemnity schedules.
- MSMA does not oppose second opinion and preauthorization programs for medical insurance plans and will advise on standardized criteria for such programs.
- MSMA should help develop worthwhile disease prevention programs that third-parties may wish to use.
- MSMA supports efforts to develop intermediate levels of hospital care, outpatient care, and home care.
- Third-party payors should reimburse for experimental procedures only when they are part of controlled studies.

### ***Changes in Federal and State Government***

- Change federal tax laws to reduce first dollar coverage.
- Change Mississippi tax laws to reduce first dollar coverage.
- Disease prevention efforts should be expanded by increasing taxes on goods and services that negatively impact health.
- Consideration should be given to cost containment factors when planning the number and specialty of physicians in Mississippi.
- Government support of utilization review for its health programs should continue.
- Cost benefit analysis should be undertaken for new and existing regulations that deal with health care.
- State government should pay its share of the cost of providing health care under state programs to avoid cost shifting.
- Co-payment and deductibles should be applied in state health programs.

### ***Changes in Medical Liability***

- Legislation should be enacted to abolish the collateral source rule.
- Recovery for noneconomic losses should be limited by statute.
- MSMA should continue its activities to identify and rehabilitate impaired physicians.
- The Board of Medical Licensure should continue and expand its activities dealing with incompetent physicians.

- MSMA members should continue to support the patient grievance mechanism within the medical association.

### ***Hospital Procedures to Encourage Cost Effective Practices for Physicians***

- Physicians should justify procedures, studies and consultations with appropriate data and reasons and participate in physician sponsored utilization review activities.
- Physicians should periodically review patient hospital protocols.
- Hospital price information should be made available to consumers and physicians.
- Physicians should review hospital bills of their patients.
- Hospitals should disseminate material to patients on how to use the health care system.

### ***Physician Education***

- Continuing medical education should include courses in cost effective medicine.
- The University of Mississippi School of Medicine should provide increased instruction in cost effective medicine.
- Cost containment topics should be included in the agenda of the annual meeting of MSMA and at meetings of its component societies.
- Information on new financing and delivery plans should be made available by MSMA to member physicians.
- MSMA should develop and disseminate educational materials on cost containment for its members.
- MSMA component societies should organize committees composed of physicians and community leaders to discuss local health care needs and cost.

### ***Consumer Education***

- Consumer education materials should be developed on how to use the medical care system more efficiently.
- Healthier lifestyles should be promoted.
- Efforts should be made to improve consumer awareness of the willingness of physicians to discuss fees.
- Efforts should be made to modify unrealistic medical expectations and demands of consumers.
- Consumers should be informed about the reasons for the increased costs of medical care.
- Consumers should be made aware of the advantages and disadvantages of alternative delivery systems.
- Consumer information should be developed to increase understanding of third-party plans.
- Consumer education should be developed on the effects of competition.
- MSMA should develop public information regarding physician services and areas of specialty of physicians and the care they provide.
- MSMA believes that health education should be taught in school.

## **Introduction and Background**

Progress in medicine during the 20th century has provided Americans with the finest medical care in the world, along with one of the largest industries in the country. As services and technology have increased, there has been a similar increase in the demand for care and, consequently, the costs for providing care. Over the past 15 to 20 years, private and public concern with the cost of medical care has increased steadily. Employers have seen their payments for health care benefits grow substantially. Federal and state governments have witnessed a dramatic surge in budgets for medical care programs, and individual patients have faced higher and higher medical bills.

Federal government statistics for 1982 have placed the total cost for health care in America at \$322 billion. This represented 10.5% of the Gross National Product (GNP). Of this total, hospital care represented \$135.5 billion, and physicians' services came to \$61.8 billion. In 1982, per person health care expenditures were \$1,365, or \$5,460 for a family of four. A substantial percentage of the cost for health care from the patient's point of view was paid indirectly by third-party payors. In 1982, patients directly paid for 31.5% of all personal health care. Governments — federal, state and local — paid for 40.3% of personal health care, while private insurance companies paid 28.2%.<sup>1</sup>

When patients were paying all, or a substantial part of the medical bill, the concern for cost was directly felt by patients and, through them, providers. However, the expansion of third-party payment has for many years meant that physicians have seen patients that exhibited little concern about the cost of care and in many cases, demanded the highest level of care possible. Physicians along with hospitals and other providers responded to the needs and desires of patients and provided the highest level of care. This trend, along with general inflation, the complex structure of the health care industry and lack of any forces to provide care efficiently, have resulted in the alarming increase in costs for medical care.

Efforts are now underway to stop this upward trend in health care costs. The American Medical Association has prepared an ongoing cost effectiveness plan and has initiated a major effort to develop a Health Policy Agenda for the American People. The federal government has passed legislation to increase competition in medicine and deal with major problems facing the Medicare trust fund. State governments are studying health costs. In addition, hospitals, clinics, individual physicians and other providers have made efforts to be more cost efficient. Many innovative and effective changes have already been made to curb the rise in costs, but more can be done.

In developing this position statement on health care quality and cost, the Mississippi State Medical Association followed several basic principles:

Reliance should be placed on economic incentive and price sensitivity as opposed to government regulation of prices and utilization, and controls on the number and type of providers.

Effects of current tax laws on health insurance costs

and the health care system need to be recognized and addressed.

Quality of health care must be supported.

Patients must have more financial responsibility for care.

Providers and consumers need education in cost effective behavior.

All parties in the health care system must participate. No one sector can or should bear all of the burden of cost containment.

Physicians in Mississippi recognize that they have an opportunity to take a leadership role in making necessary changes to insure that quality medical care is provided through an efficient utilization of resources. The direction of this leadership will be guided by the recommendations of this report.

### ***Why the Cost of Health Care Has Increased – An Important Perspective***

An awareness of the reasons for the increase in health care costs is important when considering changes in the system and in developing realistic expectations of what can be accomplished in containing expenditures. The health care system in the United States faces a number of forces that are likely to lead to spending an increasing share of the Gross National Product on health care. While it may be possible to slow this growth, it may not be possible to effect decreases in the level of inflation adjusted spending.

The Federal Health Care Financing Administration published data showing how various factors influenced the increase in health care expenditures in the United States.<sup>2</sup> According to these data, between 1974 and 1982, increases in personal health care expenditures were due to:

General Inflation	59%
Medical Care Inflation	11%
Population Increase	8%
Other Factors	22%

General inflation and an increase in the population account for 67% of the increase in health care expenditures. There is little that can be done in the health care sector to reduce the impact of either of these factors. The balance, or 33% of the increase in health care expenditures, is due to a combination of: medical care inflation, financing, more health services in the economy, the increasing and aging population, technology, the legal climate and other factors.

Following is a brief discussion of the major factors involved in the increase in medical care costs.

#### ***General Inflation***

Medical care costs have been subject to general inflation which is reflected in increased expenditure figures. There are two approaches that can be used to measure the impact of inflation.

One approach is to construct an index of input costs or prices for medical care services. Using a medical care input price index has a potentially serious problem. Since hospitals and some other health care facilities have been

reimbursed for their costs, there is less incentive to control the amount of money spent to procure the care provided. This means that input costs or prices may be higher in the health industry than in a more price sensitive industry.

The second approach is more useful for analyzing the cost of medical care services and is used in this report. This method is a general index of inflation that covers all goods and services and is known as the GNP implicit price deflator. The following data shows total health care expenditures in various years in current dollars and in real (or inflation adjusted) dollars for the U.S. (see Table).

According to this analysis, general inflation is responsible for 43% of the increase in health care expenditures. (It should be noted that these figures cannot be used in conjunction with those in the discussion of the growth of services. That section used a proportion of GNP approach, which essentially adjusts for inflation. In addition, this analysis uses a different measure of inflation than the one used earlier in this report.)

#### **Medical Care Inflation**

The prices of medical care services have increased, on average, faster than the general price level over the past years. This may be partially due to the structure of the health care system. It may also be due to the use of new technology. With appropriate cost containment measures in place this rate of inflation should be reduced.

#### **Financing Medical Care: The Structure of Health Insurance**

The third-party financing system is one of the major reasons for health cost increases. In particular, insurance companies and government programs have made extensive use of cost based or usual, customary and reasonable reimbursement methods, which means payments are made for billed charges with few limitations. The insurance system has developed incentives to provide the highest level of care, but it lacks any requirements for efficiency.

#### **The Service Economy**

One of the most profound changes that has taken place and that continues to occur in the U.S. is the movement to a service economy. The resulting disruption of some industries, companies and individuals is dramatic.

The first major change in the U.S. economy (and in some European and Asian countries) was the movement from an agricultural economy to an industrial one. This occurred in the U.S. over the years 1800 to 1940. During this time the percent of the work force engaged in agriculture fell from 90% to less than 10%.

The second major change, referred to as the second industrial revolution by Daniel Bell, the Harvard sociologist, started in 1940 and is still in progress.<sup>3</sup> One of the most significant statistics that can be examined to follow this trend is the proportion of gross national product (GNP) accounted for by services. By 1982 this proportion has grown to about 60%. Since medical care is part of the service economy, it is expected that the proportion of GNP devoted to medical care will also increase.

#### **U.S. HEALTH CARE EXPENDITURES CURRENT AND REAL**

	<i>Current</i>	<i>Real</i>
1950	12.7 Billion	23.6 Billion
1960	26.9 Billion	39.2 Billion
1965	41.7 Billion	57.4 Billion
1970	74.7 Billion	81.8 Billion
1975	132.7 Billion	104.4 Billion
1980	249.0 Billion	139.4 Billion
1981	286.6 Billion	146.6 Billion
1982	322.4 Billion	155.6 Billion

This factor is often overlooked when the growth in expenditures is considered.

#### **Increasing Population**

Another factor responsible for increasing health expenditures has been the growth in population. Although the birth rate has declined dramatically in the U.S. since 1950, it will be many years before the size of our population ceases to grow.

#### **The Aging Population**

The age composition of the population is an important factor in the size of health expenditures. People over 65 years of age use substantially more health care services than those under 65, and those over age 75 show an even greater difference. As the population in the U.S. and Mississippi has aged over past years, health care expenditures have increased. Further aging of the population will lead to more increases in health care expenditures which are largely unavoidable.

The proportion of elderly in the population has dramatically increased in the U.S. over the past 30 years, and it will continue to do so in the future. The proportion of those age 65 and over in the U.S. has grown from 8.1% in 1950 to 11.3% in 1980. (In Mississippi the comparable figures are 7.0% and 11.5% in 1950 and 1980 respectively.) Another important statistic is the proportion of those age 75 and over. In the U.S. those over 75 grew from 2.5% in 1950 to 4.4% in 1980. (Mississippi figures are 2.1% in 1950 and 4.3% in 1980.) Estimates indicate that the proportion of those 65 and over in the U.S. will grow to 13.1% by 2000 and to 19.5% by 2025.<sup>4</sup> The proportion of the elderly in the population of Mississippi is also projected to grow.<sup>5</sup>

#### **Technology**

The health care being delivered today is substantially more complex than that of 20 or 30 years ago. Many new types of equipment in both diagnosis and treatment have been developed and are now in use. Most of this technological development is desirable in that it has led to more accurate diagnosis and better treatment, but it has had an impact in raising health care expenditures. While society obviously would not be desirous of eliminating this tech-

nology, in some cases the technology has been overused or introduced before its true value was determined.

One example of technology that is clearly beneficial, although expensive, is kidney dialysis and transplantation. Until 1960 many patients with kidney failure died. A mechanical method of cleansing the blood, called dialysis, had been experimental since World War II. When combined with surgical techniques to allow the blood to be removed from the body, dialysis allowed patients with kidney failure to remain alive. Surgical transplantation of kidneys has also been developed. In many cases, the implanted kidney is successful and the patient no longer needs dialysis. The cost for dialysis per patient is from \$15,000 to \$20,000 per year. The cost of this technology is high, but many people live longer because of its use.

Technological development in medicine will continue and expenditures linked to these developments and implementation are likely to increase. However, it may be essential to establish better methods for evaluation and use of technological advances in the future.

### ***The Legal Climate***

The U.S. is one of the most litigious societies in the world, and the health care system has felt the impact of legal actions in medical liability cases. The trend in health care has been toward an increasing number of filings for malpractice suits and granting of substantially higher awards. These awards have resulted in increased malpractice insurance rates that are reflected in increased operating costs for hospitals and physicians' offices. These increases in turn lead to higher prices for health care services. In addition, the threat of lawsuits has caused some increase in the number of diagnostic tests performed and in the frequency of specialist consultations.

## **The Problems**

Before considering ways to deal with health cost increases, it is necessary to review problems within the health care system.

These problems can be grouped into six major areas for review and analysis:

Physicians  
Hospitals  
Consumers  
Medical Insurance  
Technology  
Medical Liability

### ***Physicians***

Physicians can play a key role in the control of medical care costs. Although physicians' fees account for only 19% (as of 1982) of all expenditures on health, they control the use of much hospital care, prescription drugs, nursing home care and many other services.

Physicians are also part of the problem of increased health care costs. They have worked in a health care system that has educational, legal and financial incentives for the provision of more health care services but limited

recognition of the costs of services. This system has led to the following patterns that are not cost efficient.

- Physicians typically train in medical schools and hospitals that provide significant amounts of specialized, technologically advanced care. This tends to influence physicians to use such services throughout their careers.
- The current mood toward increased litigation in medical malpractice influences physicians to order more tests and seek more consultations than may be necessary.
- The fee for service reimbursement system encourages the provision of more care. Third party reimbursement is commonly based on the number and type of services provided. If more services are provided, then a physician receives more income. In addition, the level of payment per service is usually determined by a physician's past charges and the charges by other physicians for the same service.
- Physicians have incentives to request that the hospitals in which they practice offer a wide range of services with the most up-to-date equipment possible.
- New procedures are often priced at excessive and unreasonable levels.
- Physicians use the services of a hospital without any direct financial impact on themselves and, in most cases, on their patients. They are often unaware of actual hospital costs.
- A wide variety of practice patterns exists with some physicians placing excessive reliance on tests and procedures.

Adding to the present incentive system to provide more care are problems related to lack of information for physicians and consumers.

- Some physicians are not given enough education in cost effective practices in the private office or hospital.
- Some physicians have not received information on new financing and alternative delivery plans.
- Some physicians do not adequately advise patients of the options available to them and the costs of these options.
- Consumers do not have a sufficient amount of information about physicians' fees.

New physicians entering practice have distinct effects on the medical care system.

- A larger number of physicians leads to higher health care expenditures, though the proportion of increase in physicians (e.g. 10%) is greater than the proportion of increase in spending (e.g. less than 10%).
- A larger number of physicians may make the formation and operation of alternative delivery plans easier.
- More physicians may moderate fees for some services that are not heavily reimbursed through insurance.

### ***Hospitals***

Hospital services range from routine surgical and medical care to highly specialized, technologically intensive medicine. Medical care in hospitals accounts for 42%

of all expenditures (as of 1982), which is the largest single portion of all medical care spending.

Financing hospital care through third-party payors is one of the most important reasons for the high cost of hospital care. Until very recently, hospitals were reimbursed for their charges or costs, regardless of the amount charged. Because of the financing methods, hospitals have had no incentives to conserve resources or operate efficiently and, in fact, were penalized financially if they did so. Hospitals, therefore, operated within a system that is not cost efficient.

- Hospital incentives through third-party reimbursements have encouraged more care with little control on the level of payment.
- Hospital services are often controlled by physicians as they admit patients and order their care while in the hospital.
- Hospitals face competition in offering services and equipment. There has been an incentive for hospitals to offer services and equipment that will attract physicians. With reimbursement on the basis of costs or charges, hospitals have not considered how effectively the services or equipment are used. A related problem is that hospitals have used other services to subsidize payment for services with low utilization.
- Without incentives to operate efficiently, hospitals have not always dealt with problems ranging from excessive staffing to the high cost of supplies.
- Hospitals must comply with extensive regulations, and these often result in increased costs. Cost of implementation is seldom considered when regulations are formulated. While some regulations are necessary, there are cases where the benefits may not be worth the considerable cost increases.

### **Consumers**

The demands of patients on health care providers are a significant factor in raising health care spending. Physicians, hospitals and others find that patients' desires and needs must be reasonably met. Patients, in turn, are influenced by their understanding of the health care system, their medical insurance coverage and expectations regarding what medicine can and cannot do. It is the position of the MSMA that to change consumers' behavior, it is necessary to alter their incentives and knowledge.

There are four specific consumer related problems the MSMA considered.

- Consumers have little, if any, incentive to use the medical care system efficiently. Some consumers are not aware or concerned with using the health care system in a proper manner. In many instances consumers may use hospital emergency room services even though care can be provided in a physician's office, or they may go directly to a specialist for care when a primary care provider could manage the problem for less cost.
- Consumers often have extensive medical insurance coverage with no incentive to limit unnecessary care.

Consumers may have little choice in the type of insurance or delivery plans available through their employer or the government. Most employers offer just one plan, although some do make several plans available. Government programs (Medicare and Medicaid) offer just one financing plan, although some recent changes in Medicare may lead to more diversity.

- Federal and state income tax laws give business and consumers a definite incentive to purchase first dollar coverage.
- Some consumers have lifestyles that cause definite health problems that may lead to excessive medical care. These include smoking, excessive use of alcohol, overeating and high risk activities such as riding motorcycles or hang gliders.

### **Technology**

Medical care being delivered today is substantially more complex than care provided 20 or 30 years ago. The number and types of equipment in use in diagnosis and treatment are astounding. While much of the new technology is beneficial, in some cases it is used less efficiently than it could be. The MSMA identified five general problems related to technology.

- There is often a lack of justification or sufficient reason for the use of high technology.
- Some patients have unrealistic expectations regarding technology.
- When equipment is not appropriately regionalized lower utilization and higher cost can occur.
- Prices charged for new services are at times significantly above the actual cost of providing the service.
- Outmoded procedures are at times performed for a period of time beyond the point when they have been shown to be ineffective or have been replaced by something better.

### **Medical Insurance**

The impact of medical insurance financing is dramatic because the major portion of health care is paid for by third-party payors. There are generally two major types of third parties: (1) private insurance and benefits administration companies, and (2) government financed plans. Private third parties are composed of the Blue Cross/Blue Shield plans, commercial health insurance companies such as Connecticut General, and self-insured plans in which a company insures its own employees for health care expenses. Self-insured plans are often administered by an insurance company, leading patients and providers to think that they have private insurance.

The two most significant public financing programs are Medicare and Medicaid. The former pays for services for those over 65 and some disabled individuals. Medicaid covers some of those who are indigent.

Third party reimbursement plans have, until very recently, paid hospitals on the basis of either costs or charges, whatever those might be. Physicians have been reimbursed for some part of their fees through the usual, customary or reasonable fee. These types of reimbursements have added to the rising health cost problems.

- Patients have a financial incentive to demand more care

than they may otherwise need, and providers have an incentive to provide it.

- Third-party plans have been reluctant to differentiate insurance coverage by different degrees of risk based on controllable behavior (i.e. smoking, drinking, overweight or hazardous activities).
- New alternative delivery and financing plans may contain incentives to reduce quality and to adversely impact the physician-patient relationship.

### **Medical Liability**

There are four significant issues in the area of medical liability.

- Some awards against providers for personal injury are excessive, which leads to higher liability insurance premiums.
- Injured individuals need a just level of financial recompense.
- Providers that are inadequate should be educated or have their practices restricted.
- Concern about potential liability has resulted in increased ordering of tests and x-rays.

### **Cost Containment Proposals**

The proposals recommended by the Mississippi State Medical Association for medical care cost containment relate to the problems identified in the health care system.

Many of the problems and the recommendations in each category tend to overlap.

To simplify the process of documenting the recommendations, they have been organized into six separate groups:

- Changes in the structure of health insurance
- Changes in federal and state government
- Changes in the medical liability system
- Hospital procedures to encourage cost effective practices for physicians
- Physician education
- Consumer education

#### **Changes in the Structure of Health Insurance**

##### *1. Cost sharing by consumers*

MSMA strongly recommends that all medical insurance policies or benefit plans offered by employers contain significant cost sharing in the form of deductibles and coinsurance.

When consumers have a direct financial stake in their health care, the demand for services is reduced. A Rand Corporation study<sup>6</sup> clearly showed that cost sharing reduces health care expenditures. It also suggested that health status is not reduced.<sup>7</sup>

Most private third-party plans (70% to 75% according to recent surveys)<sup>8</sup> pay all of the costs of necessary care given to those covered by the plan. Medicare does have a deductible for hospital and physician care, as well as coinsurance for physician services. Hospital care is paid for in full, after the deductible, for the first 60 days in a benefit period. After 60 days copayment is due.

Cost sharing in medical insurance should be related to an individual's income. A set amount of a deductible, for example, may be overwhelming in some budgets and barely noticeable in others.

MSMA realizes that there are limits to the cost saving impact of copayments and deductibles in medical insurance. The cost of much of the medical care that is provided will exceed any reasonable stop loss levels. (Seventy-eight percent of all health care expenditures are for claims exceeding \$1,000 in total cost.) Cost sharing on the "lower end" of medical costs should be complemented by better insurance coverage for catastrophic medical costs.

##### *2. MSMA supports utilization review of health services by practicing physicians*

MSMA supports the concept of practicing physicians reviewing the necessity and quality of medical services purchased by third-party payors. The Mississippi Foundation for Medical Care, a statewide professional review organization (PRO), was founded by the association for this purpose.

##### *3. Lower medical insurance premiums or rebates for healthy lifestyles*

MSMA suggests that either lower medical insurance premiums or rebates be given to people who follow healthy lifestyles.

It is inappropriate for persons with healthy lifestyles to subsidize the health care costs of those individuals who deliberately jeopardize their own health. Just as drunk drivers must pay higher automobile insurance rates, consumers who choose behavior that may result in excessive risk for costly medical consequences should pay higher health insurance rates. Known health risks such as smoking, excessive drinking, severe overweight, or hazardous activities such as hang gliding, etc., should be considered.

It is difficult to set actuarially fair premiums for different health risks. To accomplish widespread implementation of this proposal, it will be necessary through legislation to either give insurers and benefits administrators some incentive to offer such plans or to mandate that such offerings are available.

##### *4. Quality of care in alternative delivery systems*

MSMA recommends statutory standards for alternative delivery systems and a legislative prohibition of hold harmless clauses.

Some alternative delivery systems, particularly Health Maintenance Organizations (HMOs) and Preferred Provider Organizations (PPOs), place restrictions on the care provided to patients in an effort to reduce costs. Restrictions are most commonly defined by preadmission certification, second surgical opinion programs, length of stay restrictions and standards set through retrospective study. There is a potential that these restrictions could have an adverse impact on the quality of care and result in claims of malpractice. In such cases, the delivery plan should bear an appropriate amount of the financial responsibility, and should be prohibited from contracting on a "hold harmless" basis. Additionally, the diversity of such re-

strictions is confusing to both consumers and providers and should be standardized by statute if necessary, based upon professionally recognized norms.

#### 5. Fee schedules

MSMA supports current efforts by the American Medical Association and various specialty organizations to again make available relative value studies which can be used as a basis for indemnity payments.

#### 6. Second opinion and pre-authorization programs

Health care expenditures and the amount of medical services provided, especially in the area of elective procedures, may be reduced by second opinions and pre-authorization programs. Studies should continue to determine the impact of such programs on quality of care and cost. MSMA will advise on criteria for such programs and the programs should be standardized by statute.

#### 7. Disease prevention programs

MSMA can help determine worthwhile disease prevention programs.

Employers and third-party insurance plans are interested in offering prevention programs to employees if the programs can be shown to reduce the cost of health care. MSMA is willing to provide assistance in evaluating such programs.

#### 8. Develop alternative levels of care

MSMA supports efforts to develop intermediate levels of hospital care, outpatient care and home care.

Third-party payors will, in the future, have an increasing interest in paying for intermediate levels of care. Competition between alternative delivery plans and third-party payors along with new financing methods, such as Diagnostic Related Groupings, will provide an impetus in this direction. MSMA can assist in this area by developing guidelines for conditions that can be treated appropriately in various alternative settings.

#### 9. Experimental Procedures

MSMA recommends that third-party payors only reimburse for experimental procedures when they are part of controlled studies which have been approved by a nationally recognized group or by an institutional review.

#### **Changes in Federal and State Governments**

##### 1. Change federal tax laws to reduce first dollar coverage

MSMA recommends a change in federal tax laws to reduce first dollar coverage. Federal tax laws should be modified to allow an employer deduction only if there is appropriate and significant cost sharing and the same dollar amount is paid for any benefit plan, by class of employee. In addition, a tax on supplemental policies is necessary. The additional premiums paid by employers for supplemental benefits should be subject to taxation to the employee as compensation.

Current financing mechanisms for medical care presently provide extensive first dollar coverage. Patients have little financial interest in the care they receive be-

cause they are isolated from the actual payment for care.

Tax laws now stimulate first dollar coverage. For example, employees either receive money as wages and pay medical bills directly or they receive health insurance benefits from their employer. Assume that \$100 in medical care bills is to be paid. If the employer provides insurance coverage, the \$100 is paid by the insurer. The employee has received medical benefits worth \$100 at no tax cost. However, if the employee earns wages or salary to pay the \$100, then the following amounts must be earned given the indicated marginal tax rates.

Marginal Tax Rate (Federal, Social Security, Amount of Wages or Salary State)	Necessary to Pay \$100
20%	\$125
30%	\$143
40%	\$167
50%	\$200

The cost of \$100 is escalated due to the marginal tax rates. The tax rates of 20% to 40% are quite common, given the inflation experienced during the 1970's and early 1980's.

If consumers are to be able to choose the type of policy that is appropriate for their situation, it is necessary that prices be comparable. Legislation is necessary to require that the actual dollar contribution be equal by class of employee. (Different "classes" of employee means single, two-person, family, etc. This would be integrated with lower premiums or rebates for healthy lifestyles.) If this is not the case then some types of plans are being subsidized. If delivery plans are to be truly tested in the marketplace, then the subsidy must be eliminated. Mississippi's congressional delegation should be urged to support legislation to accomplish these changes in federal tax laws.

##### 2. Change state tax laws to reduce first dollar coverage

MSMA recommends modification of Mississippi tax laws to reduce first dollar coverage.

This issue was addressed previously in the section on the Federal Government. The impact of a change in Mississippi law will be much less than a change at the national level.

##### 3. Expand disease prevention through funding generated by increased taxes

MSMA recommends expanding prevention efforts by increasing taxes on goods and services that negatively impact health. In addition, MSMA recommends using part of the money saved as health care costs are contained to further educate the public regarding disease prevention.

Legislation will be necessary to impose taxes on such items as cigarettes, alcohol, etc. It will be necessary to provide adequate documentation of the health care costs generated by such items to help justify the increased taxes and to determine appropriate rates.

##### 4. Cost containment factors in planning for future physicians

MSMA recommends that consideration be given to cost

containment factors when planning the number and specialty of physicians in Mississippi.

Planning the number and specialty of physicians being educated in Mississippi is performed by the University of Mississippi School of Medicine, Board of Institutions of Higher Learning and the Legislature. When decisions are made regarding physician education in Mississippi, these bodies should give special attention to the cost implication of their decisions. MSMA does not support or recommend a quota system.

#### *5. Government support for utilization review of medical care*

MSMA supports continued review of utilization of medical care.

A statewide physician-sponsored review system is presently operating under the Mississippi Foundation for Medical Care. Government agencies and some private insurance companies are utilizing the services of this organization. MSMA endorses the Mississippi Foundation for Medical Care and urges all third-party payors to utilize its review system.

#### *6. Cost benefit analysis of regulations*

MSMA recommends cost benefit analysis of new and existing regulations that deal with health care.

State agencies should be required to consider both the costs and benefits of any regulations that impact health care. This will help those concerned to see the actual impact of regulations.

#### *7. State government paying its share*

MSMA recommends that state government be required to pay its share of the cost of providing care under state programs.

When the state government does not adequately fund its health care programs, such as Medicaid, the costs of the programs are shifted to other patients. As a result, state programs become an additional cost burden on privately insured and cash-paying patients. Such costs should be spread across the entire state tax base and not shifted to a relatively small portion of the population.

#### *8. Co-payments and deductibles*

MSMA recommends that co-payments and deductibles be applied in state health programs.

Cost sharing should be applied in state health programs as a method to reduce health care expenditures.

### ***Changes in the Medical Liability System: Tort Reform***

To help the legal system more effectively deal with cases of medical liability, the MSMA proposes five changes.

#### *1. Legislation should be enacted to abolish the collateral source rule*

The collateral source rule prevents juries from taking into account other sources of reimbursement in the case of medical liability. For example, a plaintiff may receive payments from a health or disability insurance plan to cover medical expenses but these are not taken into

account when medical liability settlements occur. Abolishing the collateral source rule will allow consideration of the coverage received from other sources so that the same medical loss will not be paid twice.

#### *2. Recovery for noneconomic losses should be limited by statute*

Recent awards in some medical liability cases have been set at extremely high levels. While certain states have a much greater problem than Mississippi (i.e. New York, Florida, California) there have been a few substantial awards in this state. In addition, trends in other parts of the U.S. have an impact on Mississippi. The determination of the amount to be paid for economic losses (medical costs, loss of income, etc.) can be made and is relatively straightforward. On the other hand, determination of the amount of awards for noneconomic losses (pain and suffering, lack of conjugalility, etc.) is to a large degree arbitrary. The MSMA proposes that such awards be allowed, but that limits be placed on the size of the noneconomic portion. Setting the size of the limit is arbitrary. It must be sufficiently high to allow for adequate recompense, but low enough to avoid substantial windfalls.

#### *3. MSMA should continue its activities to identify and rehabilitate impaired physicians*

MSMA has a successful program to rehabilitate physicians who are impaired in their performance by alcohol, drug abuse or psychological illness. These efforts should be continued and strengthened.

#### *4. The Board of Medical Licensure should continue and expand its activities dealing with incompetent physicians*

The Board of Medical Licensure should increase its activities to find and deal with incompetent and impaired physicians. Increased activities in this area may lessen medical liability insurance claims. This requires active finding and testimony by all members of MSMA.

#### *5. MSMA members should continue to support the patient grievance mechanism within the medical association*

The MSMA has an existing mechanism to hear and resolve complaints against its member physicians. While the MSMA is relatively limited in the sanctions it may impose, the mechanism is effective in resolving misunderstandings or identifying problems that need further attention and should be supported by all members.

### ***Hospital Procedures to Encourage Cost Effective Practices for Physicians***

#### *1. Justification of Studies and Consultations*

MSMA recommends that hospitals encourage physicians to justify studies, consultations and procedures with appropriate data and reasons.

Technology (studies and procedures) and consultations have both increasing and decreasing cost effects. To enhance the cost benefits, hospitals should design and implement methods that require or encourage physicians to

justify the studies, procedures and consultations they order. Some suggestions to accomplish this end are:

- a. Encourage clinical research that evaluates cost considerations of new tests as well as existing tests.
- b. Suggest each medical staff assume the responsibility of ongoing prospective review or evaluating and reviewing procedures and diagnostic tests on a regular basis.
- c. Encourage regular multidisciplinary Morbidity and Mortality rounds in every hospital. Cost effectiveness and outcome should be considered in review of all cases presented.
- d. Encourage hospitals to offer physicians ongoing, clinically oriented, medical education concerning proper use of diagnostic tests. Care must be taken not to generate enthusiasm for testing without teaching proper cost considerations.
- e. Statistics should be distributed regularly and no less than annually concerning the total number of various diagnostic tests performed in each hospital. This would include diagnostic testing performed by specialists such as cardiac catheterizations, endoscopies, ultrasounds, and the like, as well as sophisticated tests such as computerized axial tomography, and more routine tests including the complete blood count (CBC). The information gathered would also include total cost of the procedures and tests. From time to time this information should be presented and discussed at a hospital staff meeting.
- f. Encourage use of referral forms that state reasons for seeking consultation.
- g. Establish local protocol committees to encourage appropriate high technology utilization.

## *2. Periodic Review of Hospital Protocols*

MSMA recommends periodic review of all hospital protocols.

Standing orders in hospitals develop when a physician or group of physicians recognize patterns in either their patient population or their practice style. To avoid repeated ordering and to save time, standing orders are given for patients.

While these orders often may be efficient and cost effective, they may result in unnecessary testing if they become outdated and are not approved.

Peer Review of all standing orders should occur at least on an annual basis in all Mississippi hospitals. Cost considerations should be part of the re-evaluation process.

Medical staffs should be given guidelines to help develop cost effective standing orders.

## *3. Information on Hospital Prices for Consumers and Physicians*

MSMA recommends that hospital price information be made available to consumers and physicians.

Information on hospital prices should be made available in a convenient, accessible form for both consumers and physicians. Consumers generally have no knowledge of the price of goods and services provided by individual hospitals until they receive a bill after a period of hospitalization. Physicians and other health care professionals

are often unaware of what hospitals charge for services, tests and supplies, or how charges are actually derived. If physicians are more aware of hospital charges, they can be more cost effective in their decision making. Further, if physicians become aware of how specific charges are determined, then a more cooperative attitude will result between physicians and hospital. This may further the cost containment effect by allowing more discussion as to which tests, procedures and services are offered.

## *4. Review of hospital cost by physicians*

MSMA recommends that physicians familiarize themselves with hospital costs of their patients.

As physicians-in-training are learning the practice of medicine, they should also learn the cost implications of medical practice.

## *5. Consumer education on use of health care system*

MSMA recommends that hospitals disseminate material to patients on how to use the health care system.

Each medical staff or hospital should develop educational material or use existing material to teach patients how to use the health care system. With the current use of in-hospital television, patients can be easily taught in their rooms. Written material would also be useful.

## **Physician Education in Cost Efficient Medicine**

### *1. Provide cost effective medicine instruction for physicians*

MSMA recommends continuing medical education include courses in cost effective medicine.

A course of instruction on cost effective medicine should be developed by the MSMA for representatives of hospital medical staffs, component societies, medical school faculty and other physicians. The course would be available for any group of physicians in the state.

### *2. Provide cost effective medicine instruction for students*

MSMA recommends that a liaison with the University of Mississippi School of Medicine be developed to pursue increased instruction in cost effective medicine.

It should be recognized that this type of instruction must compete with an ever expanding amount of basic science and clinical knowledge.

### *3. MSMA recommends cost containment be included at meetings of the organization*

As part of its annual meeting the MSMA should sponsor sessions on cost containment issues for its member physicians. Component societies of MSMA should be encouraged to present cost containment information at their meetings.

### *4. MSMA recommends that information for physicians on new financing and delivery plans be made available*

MSMA can assist physicians in better understanding new financing and delivery plans through its regular publications, the annual meeting, other meetings and special

publications. This activity has already started and should be continued.

*5. MSMA recommends that educational materials on cost containment be developed for its members*

The MSMA should develop and disseminate materials for its members on a variety of topics concerned with cost containment.

*6. Physician and community leaders should discuss local health care needs and costs*

MSMA component societies should serve as a catalyst to bring together physicians and community leaders to discuss local health care needs and costs on a regular basis.

### **Consumer Education in Medical Services**

Consumers of health care are likely to face more responsibility for selecting needed care as competition and changing delivery models develop. Consumers will also face more direct financial obligation for their care. It is important that information about the medical care system be made available to the public. MSMA proposes nine specific recommendations for consumer education.

*1. Consumer education should be developed on how to use the medical care system more efficiently.*

As the medical care system becomes more complex and offers a wider variety of services, it will be important to educate people to be wise consumers of health care. Responsible choices can result in considerable savings in health care expenses. For example, people should know the proper use for emergency rooms, ambulance or paramedical personnel, levels of care available in the home or physician's office, and hospital care. Information available for consumers could lead to significant reductions in abuse of resources and patient confusion.

*2. MSMA supports efforts to promote healthier life-styles.*

Many consumers are very diligent in maintaining their health and follow life-styles that are healthy, but others continue to engage in behavior that will have adverse health consequences. The MSMA can be of assistance in developing useful and accurate educational materials or supporting other organizations that are working to promote better health habits for Mississippi people.

*3. Efforts should be made to improve consumer awareness of the willingness of physicians to discuss fees.*

The public needs to know that physicians are concerned about the cost of medical care and are willing to discuss their fees. Physicians are encouraged to also provide care at reduced amounts for their patients who may be unemployed or experiencing financial difficulty. The MSMA can be of assistance by providing brochures and other informational items for physicians to use with their patients.

*4. MSMA recommends efforts be made to modify unrealistic medical expectations and demands of consumers.*

The medical profession and the public media often have given the public unrealistic expectations about what medicine can accomplish. While it is true that modern medicine can accomplish a great deal, there is a tendency for consumers to expect medicine to cure all injury and disease. Educational material can help reduce these unrealistic expectations.

*5. MSMA recommends consumers be informed about the reasons for increased costs of medical care.*

The public needs to be educated regarding why the cost of medical care has increased. Unfortunately, too many members of the public place full responsibility on physicians and hospitals and do not realize the impact of our financing system, the effects of technology, the aging population and other factors. This information needs to be communicated effectively.

*6. MSMA supports increased awareness of the advantages and disadvantages for consumers of alternative delivery systems.*

Alternative delivery plans represent a change in the way health care is delivered. Information to help consumers better understand these plans and the impact they will have on medical care will be beneficial.

*7. MSMA supports consumer information to increase understanding of third-party plans.*

Most consumers are covered by some type of third-party insurance plan for medical care. Much of the documentation of these plans is unnecessarily difficult to read. The State Insurance Commissioner's office should develop regulations that require easy to understand summaries of key features of any health insurance plan.

*8. MSMA supports consumer education on the effects of competition.*

Competition is being encouraged among health care providers. As in any competitive market, consumers must analyze the information provided and make decisions. Because this is a new approach in health care and because consumers may be at risk in selecting care, it will be important to monitor and explain to the public the effects of competition.

*9. MSMA supports public information regarding physicians and their areas of specialty.*

MSMA should develop material that presents a fair, accurate description of physicians and the care they provide. The wide variety of specialists that exist in medical care can cause confusion for consumers.

*10. The MSMA believes that health education should be taught in the schools of our state.*

MSMA offers its support to the State Board of Education to promote health education in the schools. ★★★

### **References**

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## HOUSE OF DELEGATES / Continued

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# A WORD TO THE WHYS

## WHY AMA?

The AMA has actively sought to attract women as members and leaders in organized medicine. Ongoing AMA projects and concentrated efforts by county, state, and specialty societies have significantly increased the leadership role and membership of women in organized medicine. Strengthening the voice of women in medicine through encouraging active participation: it's one more good reason why you should be a part of the AMA.

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All copy must be double spaced, including legends, footnotes, and references. Generous margins at the top, bottom, and on both sides of the page should be allowed. Each page after the title page should be consecutively numbered and carry a running head identifying the paper and author.

Titles should be short, specific, and clear. Ordinarily, a title should not exceed 80 characters, including punctuation.

**References should be limited to a maximum of 10. If there are more than 10, the references will be omitted and a notation made to write the author for a complete list.** Textbooks, personal communications, and unpublished data may not be cited as references. References must include names of authors, complete title cited, name of journal or book spelled out or abbreviated according to the *Index Medicus*, volume number, first and last page numbers, month, date (if published more frequently than monthly), and year. References should be arranged according to order listed in the text and must be numbered consecutively.

Manuscripts accepted for publication are subject to copy editing. Authors will receive galley proof prior to publication. Galley proof is only for correction of errors, and text changes

may not be made. The galley proof should be returned by the author within 48 hours from receipt, and no further changes may be made.

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A thesis summary of 75 to 100 words must accompany each manuscript.

Reprints may be obtained at cost plus shipping charges from the association and **should be ordered prior to publication.** The JOURNAL reserves the right to decline any manuscript. Authors should avoid placing subheads in the text, and the Editors reserve the prerogative of writing and inserting subheads according to JOURNAL style. — *The Editors.*

In addition, in view of *The Copyright Revision Act of 1976*, effective Jan. 1, 1978, transmittal letters to the editor should contain the following language: "In consideration of the Mississippi State Medical Association's taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns, or otherwise conveys all copyright ownership to the MSMA in the event that such work is published by the MSMA." We regret that transmittal letters not containing the foregoing language signed by *all* authors of the submission will necessitate delay in review of the manuscript. — *The Editors.*



## The President Speaking

### Objectives of PPOs

**Ellis M. Moffitt, M.D.  
Jackson, Mississippi**

Continuing our discussions of PPOs, I would like to talk briefly about utilization review and quality review. One or more of the following are usually present in most PPO plans:

1. Pre-admission certification for elective hospital admission;
2. Admission review by review coordinator, to determine if the admission is necessary;
3. Concurrent review of inpatient stays;
4. Retrospective profile analysis;
5. Discharge planning;
6. Review of hospital outpatient services;
7. Second opinion surgical review programs; and
8. Quality assurance programs. These usually involve the review of the patient's chart against patient screening criteria.

Some PPOs use the "gatekeeper" concept. All patients are first seen by a primary care physician before going to a specialist. Some PPOs make the risk factor at this point, holding back 20% of the reimbursement to primary care physician and 10% reimbursement for the specialist.

There are a couple of antitrust considerations you should be aware of in establishing a PPO — price fixing and restraint of trade.

If individual competing physicians agree among themselves on the fees they will accept for their services, this would come squarely within the realm of price fixing, regardless of any motive to reduce fees and promote competition. So how do you do it? Employers or insurers are free to contract with individual physicians. As a practical matter this puts the participating physician in a passive posture with little leverage available in the negotiating process.

Another approach is the "honest broker" concept. The desired result can be accomplished if a third party who is in no way controlled by the participating physician serves as an honest broker in setting up the arrangement. This entity can establish peer review principles, the claims processing mechanism, the fees or reimbursement structure, and perhaps the marketing plan that participating physicians would agree to accept.

The critical issue is the manner in which the fee question is resolved. While truly independent decision making theoretically

*(Continued on page 79)*

**Effecting Costs Proposals  
Requires Participation**

In an extraordinary session, the House of Delegates of the Mississippi State Medical Association adopted a report with recommendations regarding the availability of medical care at a reasonable cost.

This report was not hastily constructed and adopted. Responding to demands from many segments of society for increased efforts in controlling the rapid increase in medical cost, the Board of Trustees thoroughly investigated the causes, considered multiple ways to effect helpful changes and made some definite recommendations. These recommendations were discussed, debated, and in some instances amended before being passed by the House of Delegates.

The adopted version of the report, "Quality Medical Care at a Reasonable Cost" is reproduced in this issue for all members of the society.

Specific cost containment proposals include: (1) changes in the structure of health insurance; (2) changes in federal and state laws, (3) changes in the medical liability system; (4) cost effective hospital practice by physicians; (5) physician education; and (6) consumer education.

An indepth review of this material is strongly recommended for several reasons. First, you need to know exactly what your society did in issuing this report. Secondly, it is very informative and can prepare you to intelligently discuss the problem and the proposed changes with patients, the media and other interested groups in our society. Last, but certainly not least, it will prepare you to become an active participant in implementing all phases of this proposal. To accomplish the objectives outlined in each area will require a concerted and informed effort by all participants.

MYRON W. LOCKEY, M.D.  
Editor

**THE PRESIDENT SPEAKING**

(Continued from page 78)

eliminates the antitrust risk, some physician involvement is inevitable. Physician involvement, however, is not necessarily proportionate to physician agreement, for there exists a fine line between cooperation and collusion.

Under the reimbursement mechanism, all services are fee for service. One of the advantages is the rapid turnaround time on collections — 10 to 30 days. This is usually spelled out in the contract. When medical care is needed the patient arranges an appointment with a physician from the PPO's roster of participating providers. The patient identifies himself with a benefits card. The physician bills the payor directly for the services provided. The physician receives payment for the services in a few days. The physician agrees to accept PPO payment as full payment and cannot bill the patient for any difference.

A PPO package should be designed to meet the objectives of the four major groups involved in the purchase of health care services: payors (commercial insurance, Blue Cross-Blue Shield, employers, and union trusts); consumers of health care (patients); physicians; and hospitals.

The objectives of the first group, payors, are to control costs and to offer consumers an attractive health benefit package. The second group, consumers, seek to retain freedom of choice in their selection of providers, receive care at a convenient location, minimize out-of-pocket expenses and receive comprehensive and even expanded medical services. Physicians, in response to growing competition in the health care sector, desire to maintain or expand their patient base while practicing in a fee for service mode. Finally, hospitals, faced with low occupancy rates and competition from other providers, look to improve patient volume with minimal financial risk and regulation.

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**BACK ROW:** (Left to right) D.B. Conerly, M.D., Hattiesburg, MS; James M. Cooper, M.D., Tippelo, MS; Ralph L. Brock, M.D., McComb, MS; Louis A. Farber, M.D., Jackson, MS; Paul H. Moore, Sr., M.D., Pascagoula, MS; Joe S. Covington, M.D., Meridian, MS.



## MEDICAL ORGANIZATION

### State Hires New Medical Examiner

Iowa's state medical examiner, Dr. Thomas L. Bennett, expects to begin work in his new position as Mississippi medical examiner late this month. The Des Moines pathologist accepted the \$67,000-a-year job in February.

Dr. Bennett will be the state's first medical examiner since July 1983, when Dr. Faye Spruill resigned following the legislature's refusal to fund the office.

Dr. Spruill, a Crystal Springs native, had held the post for two years. She had designed a plan setting up three state districts, each equipped with a facility to handle death investigations and each staffed by a forensic pathologist, but lawmakers refused to approve funds for the system.

Last year, however, the legislature approved a budget of \$146,000 for the state medical examiner's office, and directed that it be placed under the Mississippi State Crime Lab.

The state's medical examiner law was passed in 1974 and was praised as a step toward upgrading the county coroner system, which requires no special training in death investigation.

Dr. Bennett will conduct training courses at the Mississippi Law Enforcement Training Academy in Whitfield and will help with a training program for coroners. He will also teach up to 20 hours a week at the University of Mississippi School of Medicine.

State law enforcement officials have long sought a medical examiner system to help solve homicides. The lack of a trained forensic pathologist to investigate deaths and testify in court has forced officials to send bodies to neighboring states where forensic pathologists could aid in the investigations.

### UMC Children's Hospital To Benefit from Telethon

Children's Hospital at the University of Mississippi Medical Center is participating in the 1985 Children's Miracle Network Telethon.

The telethon, produced annually by the Osmond Foundation, will be aired June 1-2 on WDBD-TV, Channel 40—Jackson's new independent station—to benefit the hospital.

The telethon has attracted support from many national corporations. Among them are H. J. Heinz Co., Coleco, Wendy's, Diet Center, Dairy Queen, and Coca Cola USA.

"As a corporate sponsor of the telethon, H. J. Heinz will donate six cents to the Medical Center hospital for every baby food jar label we collect," said David Bussone, associate hospital director. "Medical Center volunteers will soon contact schools and grocery stores throughout the state for assistance with the project. Individuals who wish to participate may turn labels in to the UMC Department of Public Relations. Labels, of course, should be removed from the jars."

In initial efforts to promote the telethon, more than \$6,500 was raised for the hospital in a WTYX-sponsored auction of 96 "Cabbage Patch Kids," donated to the Medical Center by Coleco. Other national sponsors are planning individual promotions.

"Every dollar raised in Mississippi through promotions like the "Cabbage Patch Kids" auction and the Heinz Baby Food jar labels will go to Children's Hospital at the Medical Center," Bussone said. "Funds raised will help young Mississippians from all over the state who come here for treatment."

Children's Hospital, a nonprofit teaching facility of the University of Mississippi Medical Center is the only hospital in the state specially equipped and staffed to meet the comprehensive needs of Mississippi's sick and injured children. Patients are admitted to the facility each year from every one of the state's 82 counties.

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## **Medical Center Names Six To School of Medicine Faculty**

Six have been named to the School of Medicine faculty at the University of Mississippi Medical Center.

The appointments were announced by Dr. Norman C. Nelson, vice chancellor for health affairs and School of Medicine dean, following approval of the Board of Trustees of State Institutions of Higher Learning.

Appointed are Dr. Shin Aizawa, instructor in medicine; Dr. Charles D. Christian, Jr., assistant professor of medicine; Dr. James L. Hagan, assistant professor of surgery; Dr. Binford T. Nash, Jr., assistant professor of family medicine; Dr. Caroline R. Norman, instructor in medicine, and Dr. William M. Schmitt, assistant professor of family medicine.

Dr. Aizawa earned the M.D. at the Nihon University School of Medicine in Tokyo, Japan, in 1980, and completed a fellowship at Nihon University Hospital in 1982. In 1983, he was a research fellow at Kyoto University in Kyoto, Japan. Before coming to the Medical Center, he completed a fel-

lowship at Nihon University School of Medicine.

Dr. Christian earned the B.A. at Millsaps College in 1974, and the M.D. at the University of Mississippi Medical Center in 1978. He did his residency at Vanderbilt University Hospital and completed a fellowship there in 1982. At the University of Texas Health Science Center in San Antonio, Texas, he completed a fellowship in 1983, then was appointed instructor in medicine, a position he held until coming to UMC.

Dr. Hagan attended Millsaps College and earned the M.D. at the University of Mississippi Medical Center in 1975. He took his residency in surgery at the Medical Center.

Dr. Nash, a Mississippi College graduate, earned the M.D. at the University of Mississippi Medical Center in 1976 where he took his residency. He also attended New Orleans Baptist Theological Seminary. After two years in private practice at Laird Clinic in Starkville, he was appointed a career medical missionary by the Foreign Mission Board of the Southern Baptist Convention. He served in Africa prior to his Medical Center appointment.

Dr. Norman received the B.S. at the University of Mississippi in 1974, and earned the M.D. at the Medical Center in 1981. She took her residency at University Hospital.

Dr. Schmitt earned the B.S. in 1966 and the M.D. in 1970 at Loyola University in Chicago. He did his internship at the University of Oklahoma, then served two years as lieutenant commander in the U. S. Navy at the Naval Training Center in Orlando, Florida. He completed his residency at Duke University in 1976, received the M.A. from Marshall University in 1979 and the Ph.D. from West Virginia University in 1984. He was assistant director of family medicine at Marshall University School of Medicine from 1978-1981 and was lecturer in community medicine at the University of Sydney in Sydney, Australia, before coming to the Medical Center.

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## **POSTGRADUATE CALENDAR**

### **Future Calendar**

*March 14-16*

SURGICAL FORUM XII

Holiday Inn Downtown, Jackson

*March 21-22*

NEUROLOGY SPRING SYMPOSIUM

Sheraton Regency, Jackson

*March 23*

SPRING SONIC SYMPOSIUM

University Medical Center, Jackson

*April 24-27*

FAMILY PRACTICE UPDATE

Sheraton Regency, Jackson

For registration information and a brochure, contact Continuing Education at the University of Mississippi Medical Center, 2500 North State Street, Jackson, Mississippi 39216-4505, or call (601) 987-4914.

### **UMC Schedules Neurology Symposium**

The Seventh Annual Neurology Spring Symposium will be presented March 21-22 at the Sheraton Regency Convention Center in Jackson.

The program will provide an overview of pediatric neurological disorders, inclusive information on the practical management, recent advances and future directions of the common and uncommon neurological disorders in children.

Credit for the course will be awarded as 13.75 hours in Category I of the Physician's Recognition Award of the American Medical Association, 13.75 hours by the American Academy of Family Physicians and 1.3 continuing education units.

Registration is \$175 for physicians.

For information or a brochure, contact the University of Mississippi Medical Center, Continuing Health Professional Education, 2500 North State Street, Jackson, Miss. 39216-4505, or call (601) 987-4914.

### **Medical Center Will Host Spring Sonic Symposium**

The Sixth Annual Spring Sonic Symposium will be presented on March 23 at the University of Mississippi Medical Center in Jackson.

The course is designed to provide a review of "state of the art" sonography in various areas of practical interest to physicians and sonographers.

Cosponsored by the Mississippi Ultrasound Society, the course meets the criteria for 6.25 credit hours in Category I of the Physician's Recognition Award of the American Medical Association and .6 continuing education units.

Registration fees are \$70 for physicians and \$30 for sonographers.

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## PERSONALS

JAMES ACHORD of UMC spoke to members of the Mississippi Dental Association in Corinth.

VINOD ANAND of UMC presented a paper at the Southern Section of the Triological Society in New Orleans in January.

WILLIAM R. ARNETT of Hattiesburg has been recertified as a diplomate of the American Board of Family Practice.

LEONARD D. BALL, III, of Gulfport was installed as chairman of the Guardian Society of the University of Mississippi Alumni Association.

BLAIR BATSON of UMC participated in an executive board planning session of the American Academy of Pediatrics in Chicago in January.

BERT E. BRADFORD announces the opening of his office for the practice of pediatrics at 1026 Biglane Drive in Brookhaven.

TARVER H. BUTLER announces the opening of his office for the practice of psychiatry at 107 Medical Plaza in Hattiesburg.

C. RON CANNON of Brandon presented a paper at the Southern Section of the American Academy of Facial Plastic and Reconstructive Surgery in New Orleans recently.

WALLACE CONERLY of UMC attended a meeting of the Tri-State Respiratory Therapy Board in Biloxi and spoke at a Regional Counselors' Workshop in Oxford.

RICHARD A. CONN and DOUGLAS W. ROUSE, JR. have opened their offices for the practice of orthopedic surgery at 108 28th Avenue South in Hattiesburg.

C. RALPH DANIEL, III, of Jackson was voted an "Outstanding Young Man of America" for 1984.

WILLIAM L. DAVIS has associated with Louisville Medical Associates for the practice of internal medicine.

DAVID CRAWFORD of UMC chaired a committee meeting of the Southwest Oncology Retreat in Dallas in January.

LOUIS A. FARBER of Jackson, WILEY C. HUTCHINS of Columbus, LOUIS A. RUBENSTEIN of Ocean

Springs and DAYTON E. WHITES of Lucedale have been named to the board of directors of the Medical Alumni Chapter of the University of Mississippi Alumni Association.

VENKATA S. GANTI has opened his office for the practice of general surgery at Medical Arts Clinic in Philadelphia.

GLEN GRAVES of UMC was among teachers for a workshop in Laurel on followup care of the high risk infant.

LES HAMMACK announces the opening of his office for the general practice of medicine at 153 South Market Street in Holly Springs.

D. CHAN HENRY has associated with Jackson Anesthesia Associates, 301 Medical Plaza Building in Jackson, for the practice of anesthesia.

THOMAS L. HORTON has associated with Madden Medical Clinic (A. L. THAGGARD, JR. and DAVID L. MOODY) for the practice of family medicine.

WAYNE A. HUGHES of Hattiesburg has been recertified by the American Academy of Family Physicians.

MICHAEL E. JABALEY of Jackson spoke at the annual meeting of the Kentucky Medical Association and was visiting professor at the University of Louisville and the University of Kentucky. He also spoke to the Kentucky Society of Plastic and Reconstructive Surgeons.

ROBERT MAY of Jackson has been elected chief of the medical staff at Hinds General Hospital.

JOHN McCANN has associated with WAYNE A. HUGHES of Hattiesburg for the practice of family medicine.

B. O. MOORE of Amory was honored upon his retirement by personnel of Gilmore Memorial Hospital for his 35 years of medical practice.

JOHN MORRISON of UMC was guest speaker at a meeting of the Southern Perinatal Association in New Orleans.

NORMAN NELSON of UMC spoke at a meeting of the Columbus Rotary Club in January.

WILLIAM NICHOLAS spoke at a seminar on diabetes in Lafayette, Louisiana, recently.

HOWARD NICHOLS of UMC was an examiner for the American Board of Pediatrics in Los Angeles in January.

## PERSONALS / Continued

J. LARRY PARKER has associated with GERALD P. RANDLE and RICHARD E. WEDDLE, 205 Medical Arts Building in Jackson, for the practice of neurology.

EDWARD K. PHILLIPS has associated with Radiological Group, P.A., 316 Medical Arts Building in Jackson, for the practice of diagnostic radiology.

A. D. POWELL and M. M. POWELL of Coldwater were presented the Outstanding Citizen's Award from the Senatobia Civitan Club.

WILLIAM F. PONTIUS of Biloxi has been re-elected chief of the medical staff of Biloxi Regional Medical Center.

BEN F. SANFORD of Starkville announces the association of W. SCOTT SANFORD for the practice of internal medicine.

KELLY SEGARS of Iuka taught a course at a recent Emergency Medical Technician seminar.

RICHARD O. SUTTON announces the opening of his office for the practice of orthopedic surgery at 300 Highway 51 North in Brookhaven.

JERE H. WEAVER announces the opening of his office for the practice of family medicine in association with T. L. Sweat, 2006 Robertson Drive in Corinth.

CHRIS E. WIGGINS announces the association of R. EUGENE BASS for the practice of sports medicine and orthopedic surgery at Pascagoula Bone and Joint Clinic, P.A.

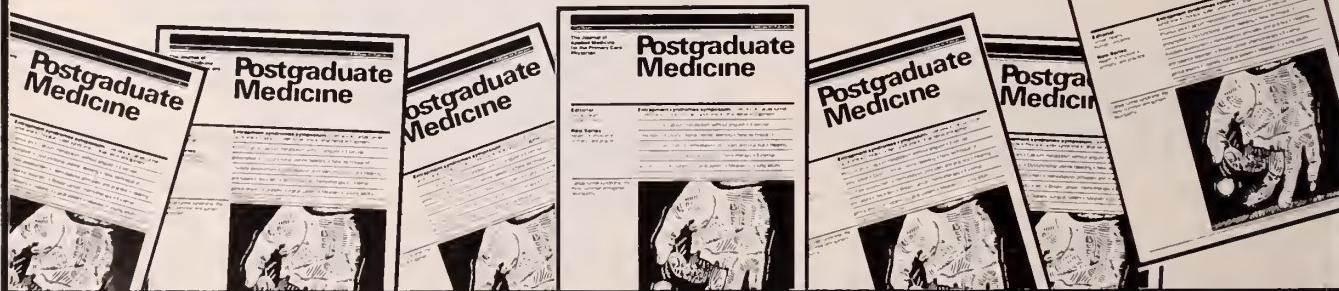
THOMAS L. WILEY, JR. has associated with The Woman's Clinic of Jackson, 918 North State Street, for the practice of obstetrics and gynecology.

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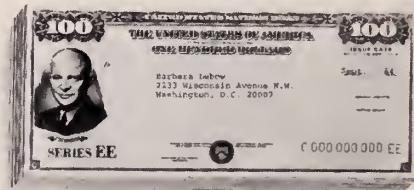
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## NEW MEMBERS

ARD, MICHAEL L., Louisville. Born Pontotoc, MS, Sept. 9, 1952; M.D., University of Mississippi School of Medicine, Jackson, 1979; interned and family practice residency, University Medical Center, Jackson, MS, 1980-83; elected by East Mississippi Medical Society.

ASHLEY, TIMOTHY D., Jackson. Born Biloxi, MS, July 8, 1954; M.D., University of Mississippi School of Medicine, Jackson, 1981; interned and family practice residency, University Medical Center, Jackson, MS, 1981-84; elected by Central Medical Society.

BEGHE-BALDUCI, CLAUDIA, Jackson. Born Rome, Italy, June 12, 1946; M.D., Catholic University, Rome, Italy, 1971; interned, medicine residency, and fellowship in medical genetics, University Medical Center, Jackson, MS, 1973-77; elected by Central Medical Society.

BLACKWELL, DEAN ALLEN, Jackson. Born Jackson, MS, Jan. 16, 1949; M.D., University of Mississippi School of Medicine, Jackson, 1980; interned Portsmouth Naval Medical Center, Portsmouth, VA, one year; elected by Central Medical Society.

BURNETT, WALTER MARSHALL, Brandon. Born Yazoo City, MS, July 25, 1954; M.D., University of Mississippi School of Medicine, Jackson, 1981; interned and family medicine residency, University Medical Center, Jackson, MS, 1981-84; elected by Central Medical Society.

CAMPBELL, ROBERT F., Jackson. Born Mayfield, KY, July 1, 1955; M.D., Duke University School of Medicine, Durham, NC, 1980; interned and family medicine residency, Medical College of Georgia, Augusta, 1981-84; elected by Central Medical Society.

CHIN, DEWEY W., Jackson. Born Cleveland, MS, July 11, 1956; M.D., University of Mississippi School of Medicine, Jackson, 1981; interned and family practice residency, University Medical Center, Jackson, MS, 1981-84; elected by Central Medical Society.

CONN, RICHARD A., Hattiesburg. Born New Orleans, Oct. 24, 1951; M.D., University of Mississippi School of Medicine, Jackson, 1978; interned and orthopedic residency, Greenville Hospital Sys-

tem, Greenville, SC, 1979-83; fellowship, Mayo Clinic, Rochester, MN, one year; elected by South Mississippi Medical Society.

CURRIER, MARY M., Jackson. Born Ann Arbor, MI, June 12, 1956; M.D., University of Mississippi School of Medicine, Jackson, 1983; interned one year, University Medical Center, Jackson, MS; elected by Central Medical Society.

ERVIN, NORMAN D., Columbia. Born Wichita, KS, July 25, 1954; M.D., University of Texas Medical School, Houston, 1981; interned and family practice residency, University of Alabama, Huntsville, 1981-84; elected by South Mississippi Medical Society.

GRAVES, THOMAS A., Gulfport. Born Minneapolis, MN, Oct. 15, 1936; M.D., Tulane University School of Medicine, New Orleans, 1961; interned Confederate Memorial Hospital, Shreveport, LA, one year; otolaryngology residency, Charity Hospital, New Orleans, 1962-65; general surgery residency, same, 1965-67; elected by Coast Counties Medical Society.

HUDSON, JACK G., Columbia. Born Hattiesburg, MS, Dec. 8, 1953; M.D., University of Mississippi School of Medicine, Jackson, 1981; interned and family practice residency, University Medical Center, Jackson, MS, 1981-84; elected by South Mississippi Medical Society.

LITTLE, NELSON K., Jackson. Born Grenada, MS, June 3, 1955; M.D., University of Mississippi School of Medicine, Jackson, 1983; interned one year and medicine residency, one year, University Medical Center, Jackson, MS; elected by Central Medical Society.

LIVERMAN, STEVEN BARRY, Wesson. Born Montreal, Canada, Aug. 11, 1952; M.D., University of Mississippi School of Medicine, Jackson, 1978; family practice residency, Naval Hospital, Jacksonville, FL, 1978-81; elected by South Central Medical Society.

LUCAS, JOHN A., III, Jackson. Born Demopolis, AL, June 15, 1948; M.D., University of Alabama School of Medicine, Birmingham, 1974; interned, six months, University Medical Center, Jackson, MS, and six months, Carraway Methodist Hospital, Birmingham; ob-gyn residency University Medical Center, Jackson, MS, 1975-78; reproductive endocrinology fellowship, University of Texas Health Science Center, Dallas, 1982-84; elected by Central Medical Society.

## NEW MEMBERS / Continued

MAJURE, JOSEPH MARC, Jackson. Born Louisville, MS, Oct. 29, 1956; M.D., University of Mississippi School of Medicine, Jackson, 1981; interned and pediatric residency, University Medical Center, Jackson, MS, 1981-84; elected by Central Medical Society.

PATTON, JOHN P., Meridian. Born Sumner Co., TN, April 8, 1938; M.D., University of Tennessee Center For Health Sciences, Memphis, 1963; interned and radiology residency, Methodist Hospital, Memphis, 1963-4 and 1967-70; elected by East Mississippi Medical Society.

PENNINGTON, KAREN A., Jackson. Born Columbia, MS, May 13, 1955; M.D., University of Mississippi School of Medicine, Jackson, 1981; interned and medicine residency, University Medical Center, Jackson, MS, 1981-84; elected by Central Medical Society.

RAJU, SYBIL F., Jackson. Born Poona, India, Oct. 17, 1941; M.D., Christian Medical College Hospital, Vellore, India, 1964; interned, same, one year;

medicine residency and fellowship in nephrology, University Medical Center, Jackson, MS, 1968-72; elected by Central Medical Society.

ROSENKRANS, RAMON H., Magee. Born Shreveport, LA, Jan. 10, 1950; M.D., Louisiana State University School of Medicine, Shreveport, 1977; interned and general surgery residency, LSU Hospital, Shreveport, 1977-82; elected by Central Medical Society.

RUSH, GUS A., III, Meridian. Born Meridian, MS, Sept. 29, 1952; M.D., University of Mississippi School of Medicine, Jackson, 1978; interned and orthopaedic surgery residency, Ochsner Foundation Hospital, New Orleans, 1978-84; elected by East Mississippi Medical Society.

SMITH, KEITH P., Natchez. Born Baton Rouge, LA, Feb. 15, 1955; M.D., Louisiana State University School of Medicine, New Orleans, 1979; interned and general surgery residency, University Medical Center, Jackson, MS, 1979-84; elected by Homochitto Valley Medical Society.

STANFORD, THOMAS E., JR., Tupelo. Born Amory, MS, Oct. 15, 1954; M.D., University of Mississippi School of Medicine, Jackson, 1981; interned and medicine residency, Baptist Memorial Hospital, Memphis, 1981-84; elected by Northeast Mississippi Medical Society.

THOMPSON, WILLIAM C., Hattiesburg. Born Columbia, MS, Dec. 5, 1953; M.D., University of Mississippi School of Medicine, Jackson, 1979; interned and medicine residency, Vanderbilt University Hospitals, Nashville, TN, 1979-82; pulmonary medicine fellowship, New York Hospital, Cornell Medical Center, New York, 1982-84; elected by South Mississippi Medical Society.

TURNER, HELEN D., Jackson. Born Walnut Grove, MS, May 7, 1943; M.D., University of Mississippi School of Medicine, Jackson, 1979; interned, medicine residency, infectious diseases fellowship, University Medical Center, Jackson, MS, 1979-84; elected by Central Medical Society.

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## **DEATHS**

**CLAY, THOMAS F.**, Tutwiler. Born Dec. 25, 1885. M.D., Vanderbilt University School of Medicine, Nashville, 1908; interned Bellevue General Hospital, New York, NY, for one year; an emeritus member of MSMA and a member of the 50 Year Club; died Jan. 12, 1985, age 99.

**MCLEOD, JAMES N., III**, Jackson. Born Chattanooga, TN, Sept. 7, 1939; M.D., University of Mississippi School of Medicine, Jackson, 1965; interned and medicine residency, John Gaston Hospital, University of Tennessee, 1965-67; medicine residency, University Medical Center, Jackson, MS, 1969-71; died Jan. 13, 1985, age 45.

**MELVIN, JAMES H., JR.**, Jackson. Born Winona, MS, June 10, 1908; M.D., University of Tennessee School of Medicine, Memphis, 1933; interned Kansas City General Hospital, Kansas City, MO, one year; medicine and surgery residency, Marine Hospital, Ellis Island, one year; dermatology residency, Barnard Skin and Cancer Hospital, St. Louis, MO, 1945-47; died Jan. 25, 1985, age 76.

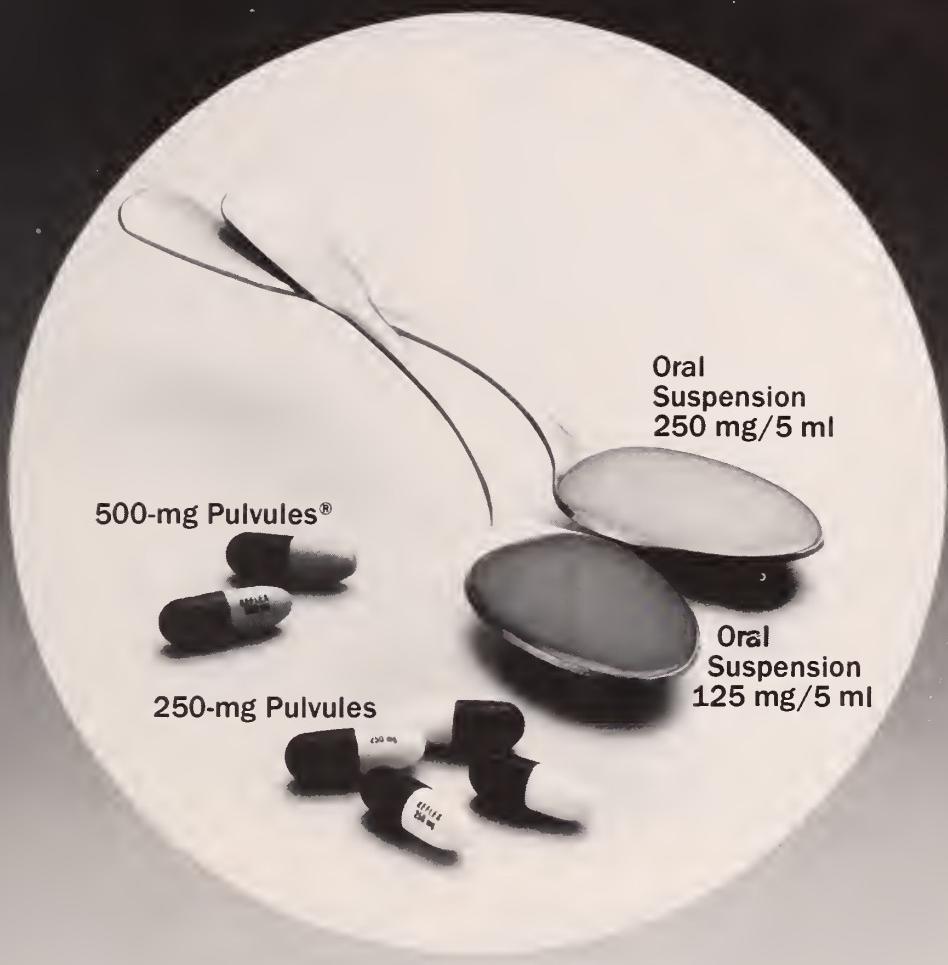
**FEURST, SAMUEL I.**, Vicksburg. Born Dembica, Poland, Sept. 9, 1911; M.D., University of Vienna Medical School, Vienna, Austria, 1938; interned Riker's Island Hospital, New York, NY and St. Mary's Hospital, Orange, NJ, one year; died Jan. 11, 1985, age 73.

**THOMPSON, W. C.**, Jackson. Born Union Springs, AL, June 28, 1903; M.D., Johns Hopkins University School of Medicine, Baltimore, MD, 1930; M.P.H., same, 1936; interned Baltimore City Hospital and Johns Hopkins Hospital, one year; medicine residency, same, 1932-33 and 1934-36; taught medicine at St. Luke's Methodist Hospital, Tokyo, Japan, 1933-34; died Jan. 11, 1985, age 81.

**WYATT, RHEA L.**, Holly Springs. Born Montgomery, AL, Dec. 30, 1912; M.D., University of Tennessee School of Medicine, Memphis, 1940; M.P.H., University of Michigan, Ann Arbor, 1947; interned John Gaston Hospital, Memphis, one year; died Jan. 16, 1985, age 72.

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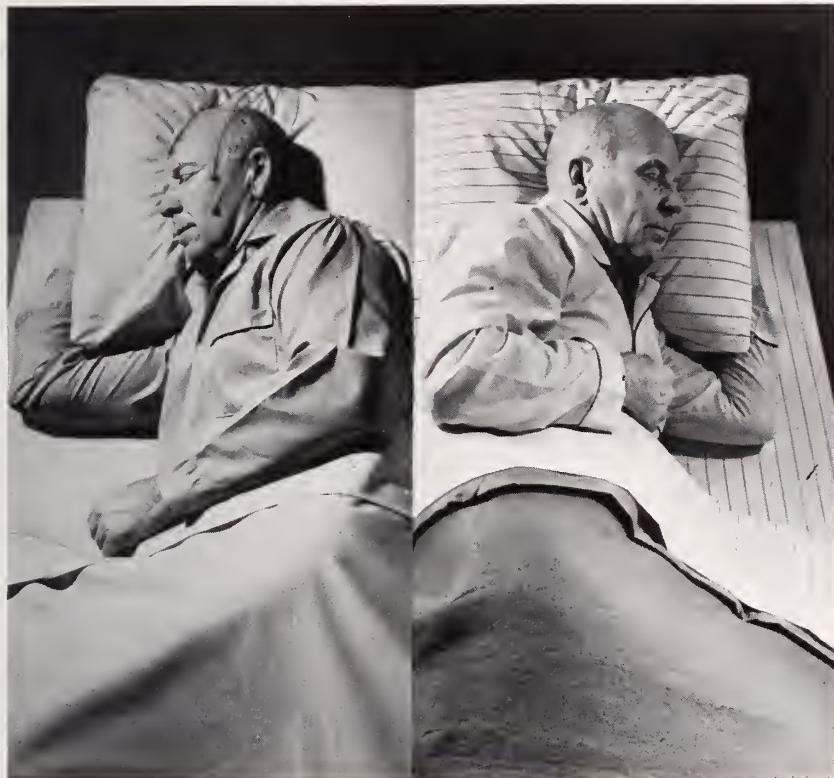
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April 1985

Dear Doctor:

This issue of your journal includes preliminary plans for MSMA's 117th Annual Session, May 15-19, at the Royal d'Iberville Hotel in Biloxi. In addition to including all the events which have been popular through the years, the agenda for the 117th Annual Session features a number of new activities.

On Wednesday, May 15, the MSMA's Hospital Medical Staff Section will conduct its first meeting. The program features knowledgeable speakers who will discuss issues facing the hospital medical staff.

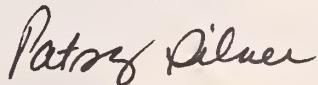
This year's annual session sees the return of the technical exhibit section, featuring 65 booths staffed by financial, computer, and medical related vendors. Plan to visit the exhibit hall and talk with the professional representatives, and be sure to register your attendance to become eligible for the attendance prize.

Saturday night's agenda features a Casino Night party, with proceeds to benefit special projects of the MSMA Auxiliary. International Productions, Inc. of New Orleans has contracted to make arrangements for this special night of entertainment.

Jeanne Robertson, former Miss North Carolina and now a professional speaker in demand at meetings across the country, will entertain MSMA members and spouses at the annual membership banquet on Friday night. You won't want to miss Jeanne's unique brand of humor, or any of the other activities on the annual session agenda.

Reports from the hotel indicate reservations are coming in at an unusually fast rate, so be sure to return you reservation card soon or call the hotel (388-6610) if you plan to attend.

Sincerely,



Patsy Silver  
Managing Editor

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# DATELINE

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## Information Campaign On Colorectal Cancer

Jackson, MS - Physicians can expect increased questions from patients about colorectal cancer. The American Cancer Society's three-year awareness campaign is continuing. This issue of the journal includes the first of three articles dealing with screening for colorectal cancer, which will claim the lives of some 59,400 Americans this year.

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## JCAH Revises AMH Standards

Chicago, IL - JCAH has approved changes in the "Medical Staff" and "Governing Board" chapters of the Accreditation Manual for Hospitals. The revisions clarify standards concerning the authority of the governing body and the medical staff in approval of medical staff bylaws. The revisions will appear in the 1986 AMH, but are effective immediately.

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## Supply Depleted Of Cost Checklist

Chicago, IL - A second printing of "Physician's Cost Containment Checklist" will be available from the AMA in May. The initial press run of 7,000 copies was depleted within two months, and the AMA has received orders for 26,000 additional copies. The nine-page booklet describes practical ways physicians can reduce costs in everyday encounters with patients.

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## Medicare Encourages HMO Enrollment

Washington, DC - Under new regulations Medicare beneficiaries will be encouraged to enroll in HMOs and other competitive plans. Medicare will set a predetermined amount for the care of each beneficiary; if the cost of treatment is less the HMO may keep the difference. HMOs will be required to contract with PROs for review of quality and appropriateness of services.

---

## Peer Review Reporting Reminder

Jackson, MS - Physicians on peer review committees are reminded of requirements for reporting disciplinary actions. Under state law, any disciplinary action taken by a physician's peers (by local, regional, state or national society or by a licensed hospital or medical staff of such a hospital) must be reported to the Board of Medical Licensure within 30 days.

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Roche salutes

# MISSISSIPPI MEDICINE TODAY

## Na<sup>+</sup>-K<sup>+</sup> balancing act

"The sodium-potassium ratio in the diet should be considered a major controlling factor of blood pressure," says Dr. Herbert G. Langford of Jackson's University of Mississippi Medical Center. Among cultures with a low incidence of hypertension, the diet consists of little sodium and large amounts of potassium from fruits and vegetables. As sodium intake increased in modern civilizations, potassium decreased. Dr. Langford thinks that low potassium may be considered an "unindicted co-conspirator in the hypertensive crime." And he speculates that "efforts to increase potassium intake may be as feasible and fruitful as efforts to decrease our sodium intake."

## Cartoon classics—help for pain

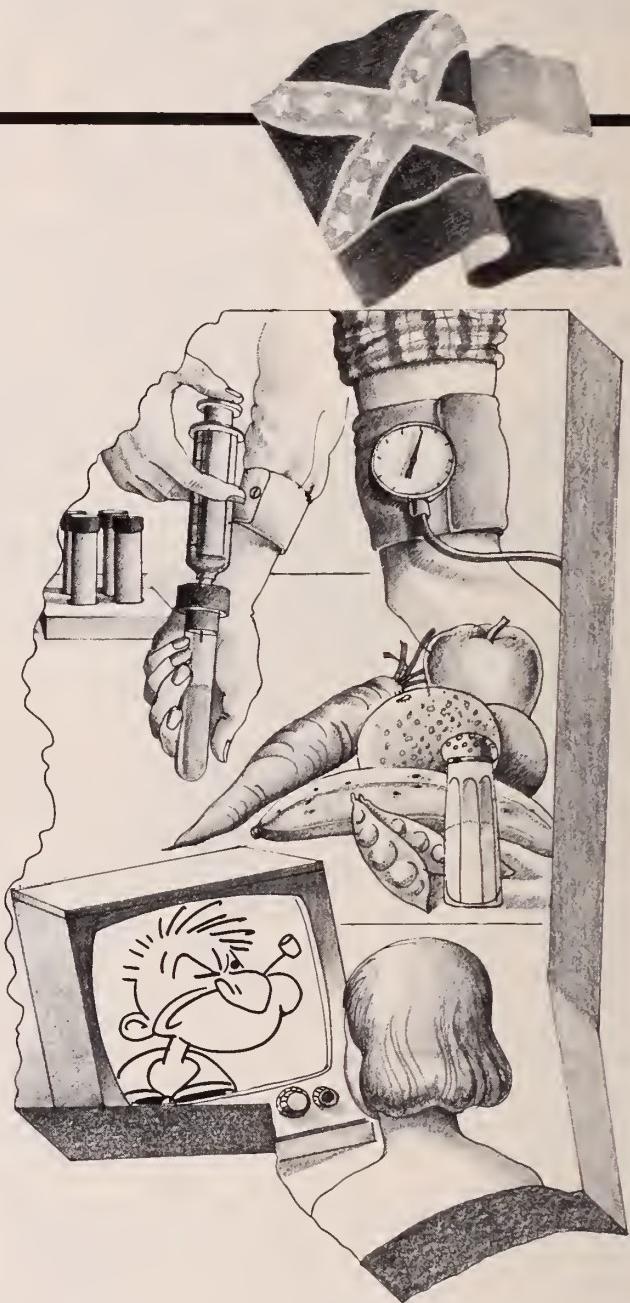
The hospitalized burned child, forced to cope with isolation, immobilization, extreme pain and disfigurement, manifests severe behavior problems during treatment. One of the most difficult management problems is with the child who must endure the excruciating pain involved in the open treatment of burns. The procedure, used for second-degree burns, involves exposure of the wounds, removal of burned skin and daily coverage with antibacterials. In order to avoid treatment, the child may scream, thrash about, cry and complain of pain—which generally worsens with time as nerve endings heal and sensation returns. Even experienced health-care workers have become faint while observing the suffering of these young patients.

Dr. Randolph S. Drobman and his colleagues in the Division of Psychology of the Department of Psychiatry and Human Behavior at the University of Mississippi Medical Center have tested a multicomponent behavioral approach for reducing pain behavior exhibited by severely burned children during the open treatment procedure.<sup>2</sup> The children, two young girls, were asked to choose a television cartoon program, either "Popeye" or "Bugs Bunny," and watch it closely during treatment. If there was a 25% or more reduction in pain behavior from the level at baseline sessions, the child was rewarded with a star placed on her chart. Both children exhibited less pain behavior during experimental sessions than during baseline sessions.

In keeping with ethical considerations and the appropriateness of the children's reaction to pain, the goal of the study was not to suppress or eliminate pain behavior completely. The researchers believe that their successful distraction-and-reward technique, the first experimental evaluation of behavior during open treatment, will point the way to much-needed clinical research in this area.

## 15-minute diagnosis of killer infection

Spontaneous bacterial peritonitis, a common and usually fatal infection among alcoholic cirrhotic patients, can now be



recognized in 15 minutes by means of a simple assay of ascitic fluid. Dr. James L. Achord and his University of Mississippi colleagues routinely screen cirrhotics for high lactic acid. This is more sensitive than conventional WBC counts and avoids many false positives. And, says Dr. Achord, most hospital labs are already equipped to do the test for one dollar.<sup>3</sup>

**References:** 1. Medical News. JAMA 248:2951, Dec 10, 1982. 2. Kelley ML, et al: J Appl Behav Anal 17:147-158, Summer 1984. 3. Medical World News, Nov 22, 1982, p. 15.



# TODAY: FOR THE PATIENT WITH MIXED DEPRESSION AND ANXIETY

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Convenient single h.s. dosing sufficient in some patients; helps patients  
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\*Feighner JP, et al: Psychopharmacology 61: 217-225, Mar 22, 1979

Please see summary of product information on following page.

**LIMBITROL® Tranquilizer-Antidepressant**

Before prescribing, please consult complete product information, a summary of which follows:

**Indications:** Relief of moderate to severe depression associated with moderate to severe anxiety

**Contraindications:** Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use; then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

**Warnings:** Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

**Usage in Pregnancy:** Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage; withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).

**Precautions:** Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated, sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.

**Adverse Reactions:** Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs.

**Cardiovascular:** Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.

**Psychiatric:** Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

**Neurologic:** Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.

**Anticholinergic:** Disturbance of accommodation, paralytic ileus, urinary retention, dilation of urinary tract.

**Allergic:** Skin rash, urticaria, phagocytosis, edema of face and tongue, pruritus.

**Hematologic:** Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

**Gastrointestinal:** Nausea, epigastric distress, vomiting, onorexia, stomatitis, peculiar taste, diarrhea, black tongue.

**Endocrine:** Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female, elevation and lowering of blood sugar levels, and syndrome of inappropriate ADH (antidiuretic hormone) secretion.

**Other:** Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaudice, diapepsia, porotid swelling.

**Overdosage:** Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestations and treatment.

**Dosage:** Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single h.s. dose may suffice for some patients. Lower dosages are recommended for the elderly.

Limbitrol DS (double strength) Tablets, initial dosage of three or four tablets daily in divided doses, increased up to six tablets or decreased to two tablets daily as required. Limbitrol Tablets, initial dosage of three or four tablets daily in divided doses, for patients who do not tolerate higher doses.

**How Supplied:** Double strength (DS) Tablets, white, film-coated, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt), and Tablets, blue, film-coated, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 50.



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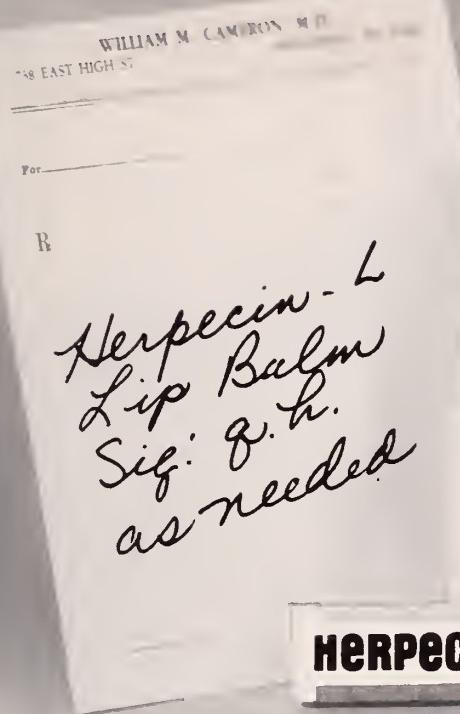
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**References should be limited to a maximum of 10. If there are more than 10, the references will be omitted and a notation made to write the author for a complete list.** Textbooks, personal communications, and unpublished data may not be cited as references. References must include names of authors, complete title cited, name of journal or book spelled out or abbreviated according to the *Index Medicus*, volume number, first and last page numbers, month, date (if published more frequently than monthly), and year. References should be arranged according to order listed in the text and must be numbered consecutively.

Manuscripts accepted for publication are subject to copy editing. Authors will receive galley proof prior to publication. Galley proof is only for correction of errors, and text changes

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In photographs in which there is any possibility of personal identification, an acceptable legal release must accompany the material.

A thesis summary of 75 to 100 words must accompany each manuscript.

Reprints may be obtained at cost plus shipping charges from the association and **should be ordered prior to publication.** The JOURNAL reserves the right to decline any manuscript. Authors should avoid placing subheads in the text, and the Editors reserve the prerogative of writing and inserting subheads according to JOURNAL style. — *The Editors.*

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# SORBITRATE<sup>®</sup> (ISOSORBIDE DINITRATE)

Please consult full prescribing information before use. A summary follows:

**INDICATIONS AND USAGE:** SORBITRATE (isosorbide dinitrate) is indicated for the treatment and prevention of angina pectoris. All dosage forms of isosorbide dinitrate may be used prophylactically to decrease frequency and severity of anginal attacks and can be expected to decrease the need for sublingual nitroglycerin.

The sublingual and chewable forms of the drug are indicated for acute prophylaxis of angina pectoris when taken a few minutes before situations likely to provoke anginal attacks. Because of a slower onset of effect, the oral forms of isosorbide dinitrate are not indicated for acute prophylaxis.

**CONTRAINDICATIONS:** SORBITRATE is contraindicated in patients who have shown purported hypersensitivity or idiosyncrasy to it or other nitrates or nitrites. Epinephrine and related compounds are ineffective in reversing the severe hypotensive events associated with overdose and are contraindicated in this situation.

**WARNINGS:** The benefits of SORBITRATE during the early days of an acute myocardial infarction have not been established. If one elects to use organic nitrates in early infarction, hemodynamic monitoring and frequent clinical assessment should be used because of the potential deleterious effects of hypotension.

**PRECAUTIONS: General:** Severe hypotensive response, particularly with upright posture, may occur with even small doses of SORBITRATE. The drug should therefore be used with caution in subjects who may have blood volume depletion from diuretic therapy or in subjects who have low systolic blood pressure (e.g., below 90 mmHg). Paradoxical bradycardia and increased angina pectoris may accompany nitrate-induced hypotension. Nitrate therapy may aggravate the angina caused by hypertrophic cardiomyopathy.

Marked symptomatic, orthostatic hypotension has been reported when calcium channel blockers and organic nitrates were used in combination. Dose adjustment of either class of agents may be necessary.

Tolerance to this drug and cross-tolerance to other nitrates and nitrites may occur. Tolerance to the vascular and antianginal effects of isosorbide dinitrate or nitroglycerin has been demonstrated in clinical trials, experience through occupational exposure, and in isolated tissue experiments in the laboratory. The importance of tolerance to the appropriate use of isosorbide dinitrate in the management of patients with angina pectoris has not been determined. However, one clinical trial using treadmill exercise tolerance (as an end point) found an 8-hour duration of action of oral isosorbide dinitrate following the first dose (after a 2-week placebo washout) and only a 2-hour duration of effect of the same dose after 1 week of repetitive dosing at conventional dosing intervals. On the other hand, several trials have been able to differentiate isosorbide dinitrate from placebo after 4 weeks of therapy and, in open trials, an effect seems detectable for as long as several months.

Tolerance clearly occurs in industrial workers continuously exposed to nitroglycerin. Moreover, physical dependence also occurs since chest pain, acute myocardial infarction, and even sudden death have occurred during temporary withdrawal of nitroglycerin from the workers. In clinical trials in angina patients, there are reports of anginal attacks being more easily provoked and of rebound in the hemodynamic effects soon after nitrate withdrawal. The relative importance of these observations to the routine, clinical use of isosorbide dinitrate is not known. However, it seems prudent to gradually withdraw patients from isosorbide dinitrate when the therapy is being terminated, rather than stopping the drug abruptly.

**Information for Patients:** Headache may occur during initial therapy with SORBITRATE. Headache is usually relieved by the use of standard headache remedies or by lowering the dose and tends to disappear after the first week or two of use.

**Drug Interactions:** Alcohol may enhance any marked sensitivity to the hypotensive effect of nitrates.

Iosorbide dinitrate acts directly on vascular smooth muscle; therefore, any other agent that depends on vascular smooth muscle as the final common path can be expected to have decreased or increased effect depending on the agent.

**Carcinogenesis, Mutagenesis, Impairment of Fertility:** No long-term studies in animals have been performed to evaluate the carcinogenic potential of this drug. A modified two-litter reproduction study in rats fed isosorbide dinitrate at 25 or 100 mg/kg/day did not reveal any effects on fertility or gestation or any remarkable gross pathology in any parent or offspring fed isosorbide dinitrate as compared with rats fed a basal-controlled diet.

**Pregnancy Category C:** Isosorbide dinitrate has been shown to cause a dose-related increase in embryotoxicity (increase in mummified pups) in rabbits at oral doses 35 and 150 times the maximum recommended human daily dose. There are no adequate and well-controlled studies in pregnant women. SORBITRATE should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

**Nursing Mothers:** It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when SORBITRATE is administered to a nursing woman.

**Pediatric Use:** The safety and effectiveness of SORBITRATE in children has not been established.

**ADVERSE REACTIONS:** Adverse reactions, particularly headache and hypotension, are dose related. In clinical trials at various doses, the following have been observed:

Headache is the most common (reported incidence varies widely, apparently being dose related, with an average occurrence of about 25%) adverse reaction and may be severe and persistent. Cutaneous vasodilation with flushing may occur. Transient episodes of dizziness and weakness, as well as other signs of cerebral ischemia associated with postural hypotension, may occasionally develop (the incidence of reported symptomatic hypotension ranges from 2% to 36%). An occasional individual will exhibit marked sensitivity to the hypotensive effects of nitrates and severe responses (nausea, vomiting, weakness, restlessness, pallor, perspiration, and collapse) may occur even with the usual therapeutic dose. Drug rash and/or exfoliative dermatitis may occasionally occur. Nausea and vomiting appear to be uncommon. Case reports of clinically significant methemoglobinemia are rare at conventional doses of organic nitrates. The formation of methemoglobin is dose-related and, in the case of genetic abnormalities of hemoglobin, that favor methemoglobin formation, even conventional doses of organic nitrate could produce harmful concentrations of methemoglobin.

**DOSAGE AND ADMINISTRATION:** For the treatment of angina pectoris, the usual starting dose for sublingual SORBITRATE is 2.5 to 5 mg, for chewable tablets, 5 mg, for oral (swallowed) tablets, 5 to 20 mg, and for controlled-release forms, 40 mg.

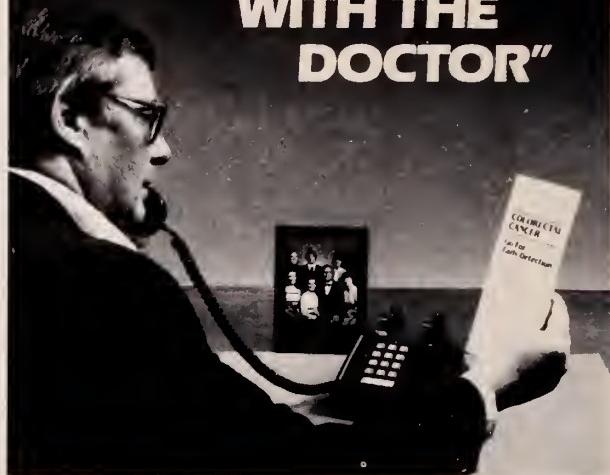
SORBITRATE should be titrated upward until angina is relieved or side effects limit the dose. In ambulatory patients, the magnitude of the incremental dose increase should be guided by measurements of standing blood pressure.

The initial dosage of sublingual or chewable SORBITRATE for prophylactic therapy in angina pectoris patients is generally 5 or 10 mg every 2 to 3 hours. Adequate controlled clinical studies demonstrating the effectiveness of chronic maintenance therapy with these dosage forms have not been reported.

SORBITRATE in oral doses of 10 to 40 mg given every 6 hours or in oral controlled-release doses of 40 to 80 mg given every 8 to 12 hours is generally recommended. The extent to which development of tolerance should modify the dosage program has not been defined. The oral controlled-release forms of isosorbide dinitrate should not be chewed.

**DOSAGE FORMS AVAILABLE:** Sublingual Tablets (2.5, 5, 10 mg); Chewable Tablets (5, 10 mg); Oral Tablets (5, 10, 20, 30, 40 mg); Sustained Action Tablets (40 mg).

## "I'D LIKE TO MAKE AN APPOINTMENT WITH THE DOCTOR"



Be prepared, Doctor. More patients will be asking about colorectal cancer. According to a survey\* conducted by the American Cancer Society, many people would like to receive more information about colorectal cancer, and 83% said they would want to be checked for it. Further, they are learning that this cancer can be detected *before* symptoms appear. The present cure rate is 44%. The cure rate *could* be as high as 75%, with early detection and appropriate management.

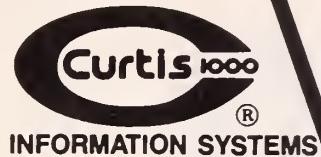
For asymptomatic persons the Society recommends annual digital rectal examination at age 40 and over; at age 50 and over, an annual stool blood test, as well as sigmoidoscopy every three to five years, following two initial annual negative sigmoidoscopies.

We're here to help. You can reach us at your local American Cancer Society office or write to our Professional Education Department at National Headquarters, 90 Park Avenue, New York, NY 10016. Ask about the Society's Colorectal Check program of professional and public education for the early detection of colorectal cancer.

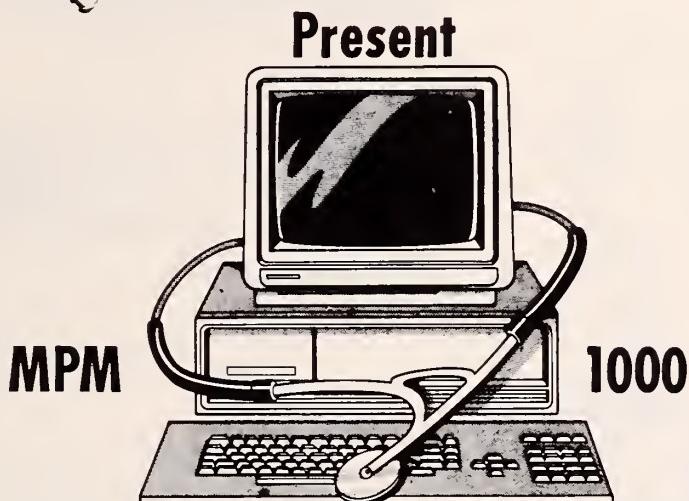


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ORIGINAL PAPERS

# Viral Hepatitis B in Pregnancy: A Case Report

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VIRAL HEPATITIS is the most common cause of jaundice during pregnancy. It is now known that there are three distinct types of hepatitis: Type A, Type B and non-A, non-B hepatitis. Major advances in immunology have refined the epidemiology and biology of the hepatitis B virus. This case report affords the opportunity to review the disease in pregnancy, define the presently used immunologic markers for the disease and expound on the appropriate usage of hepatitis B immune globulin and hepatitis B vaccine during gestation as well as after delivery.

## Case Report

A 22 year-old black female (gravida 4, para 2, abortus 1) was admitted to the University of Mississippi Medical Center at 32 weeks of gestation for evaluation of jaundice. For two weeks prior to admission, the patient noticed a slow but progressive onset of malaise in association with anorexia and nausea. On the day before arrival to our hospital, the patient became jaundiced and was referred for evaluation. The patient denied prior liver disease, a family history of hepatic disorders, drug abuse or sickle hemoglobinopathies.

Admission physical examination revealed an icteric black female in no acute distress. Vital signs revealed a BP of 120/60, pulse of 84/minute and an oral temperature of 98.8. The head, neck, chest and heart exams were within normal limits. Abdominal

examination revealed a gravid contour, fundal height of 33 cm, good fetal heart tones and an estimated fetal weight of 1800 grams. There was no hepatomegaly or abdominal tenderness elicited. Admission laboratory studies were as follows: normal serum electrolytes; normal CBC, total bilirubin, 19.1 mg/dl; direct bilirubin, 17.8 mg/dl; SGOT, 135 units/ml (nl: 0-45); alkaline phosphatase, 230 units/ml (nl: 30-100); LDH, 222 units/ml (nl: 60-225); and a normal coagulation profile. An ultrasound study revealed a single fetus, vertex presentation, a 34.6 week BPD and an anterior placenta.

Due to the marked elevation in the direct bilirubin without significant elevation in the SGOT and SGPT values, the most likely diagnosis was felt to be cholestasis of pregnancy. On the second day of hospitalization, the hepatitis screen revealed the following: hepatitis A antibody, positive; hepatitis B surface antigen ( $\text{HB}_s\text{Ag}$ ), positive; hepatitis B surface antibody ( $\text{HB}_s\text{Ab}$ ), negative; hepatitis B core antibody ( $\text{HB}_c\text{Ab}$ ), positive; hepatitis B E antigen ( $\text{HB}_e\text{Ag}$ ), positive; hepatitis B E antibody ( $\text{HB}_e\text{Ab}$ ), negative. Based on the hepatitis screen, the diagnosis of acute hepatitis B was made. Management was expectant and supportive but the patient had spontaneous rupture of the fetal membranes with delivery on the next day. The infant had mild respiratory distress, was otherwise normal and was discharged on the 11th day of life. The child received one dose of hepatitis B immune globulin (HBIG) in the nursery with additional doses planned at 3 and 6 months of age.

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## VIRAL HEPATITIS B/Continued

### Discussion

The incidence of overt hepatitis B in pregnancy is approximately 2 per 1,000 pregnancies with a hepatitis B carrier state in 1 per 1,000 pregnancies.<sup>1</sup> With the advent of hepatitis B immune globulin and hepatitis B vaccine, it is now possible to prevent vertical transmission of the hepatitis B virus to the neonate and thereby avoid the potential sequelae of acute hepatitis B or the more common carrier state in the infant. In addition, with serologic testing, one is now able to differentiate the immune, non-infectious state from the chronic carrier state. Although the low incidence of the chronic carrier state precludes routine screening, it may be prudent to screen high risk populations. Such a high risk population would consist of patients from Asia or tropical countries, health care providers and/or drug abusers.

During screening one is assessing for the presence or absence of the hepatitis B surface antigen ( $\text{HB}_s\text{Ag}$ ) and the hepatitis B surface antibody ( $\text{HB}_s\text{Ab}$ ). The presence of  $\text{HB}_s\text{Ab}$  would indicate a non-infectious state, while  $\text{HB}_s\text{Ag}$  without  $\text{HB}_s\text{Ab}$  indicates the chronic carrier state. Absence of  $\text{HB}_s\text{Ag}$  and  $\text{HB}_s\text{Ab}$  indicates an individual susceptible to hepatitis B but not currently or previously infected. If  $\text{HB}_s\text{Ag}$  is detected upon screening, it is imperative to check for the presence or absence of the e antigen. If the e antigen is present in the serum, the patient is a chronic carrier who has a high likelihood (75 to 95 per cent) of vertically transmitting the virus to her neonate.<sup>2</sup> In such a case one would be advised to intramuscularly administer 0.5 ml of hepatitis B immune globulin (HBIG) immediately after birth to the neonate with repeat administration at 3 and 6 months of age in hopes of reducing hepatitis B virus acquisition.<sup>3, 4</sup> Furthermore, in these infants born to mothers who do not have overt hepatitis B but rather are infectious,  $\text{HB}_e\text{Ag}$  positive carriers, active immunization with hepatitis B vaccine in addition to HBIG has been used and appears to have few side effects and to be highly immunogenic.<sup>5</sup>

### Summary

Thus, in summary, when one is screening for hepatitis B or when one is faced with an icteric patient, current recommendations for immunization of the neonate include:

1. Passive immunization with HBIG to neonates born to mothers with overt hepatitis B during the third trimester of pregnancy or neonates born to mothers found to be infectious carriers of hepatitis B ( $\text{HB}_e\text{Ag}$ , positive).
2. In addition to passive immunization, active immunization with hepatitis B vaccine should be administered to those infants born to infectious carriers of hepatitis B.
3. No specific recommendation can currently be given as to active and/or passive immunization of those infants born to chronic, non-infectious carriers ( $\text{HB}_s\text{Ag}$ , positive;  $\text{HB}_e\text{Ag}$ , negative) since vertical transmission is less than 5 per cent.<sup>6</sup>

It is hoped that such a passive or passive-active immunization protocol will eradicate the chronic carrier state occurring as a result of peripartal acquisition to hepatitis B virus.

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### Acknowledgement

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Before prescribing, see complete prescribing information in SK&F CO. literature or PDR. The following is a brief summary.

\* **WARNING**

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

**Contraindications:** Concomitant use with other potassium-sparing agents such as spironolactone or amiloride. Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

**Warnings:** Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K<sup>+</sup> levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K<sup>+</sup> intake. Associated widened QRS complex or arrhythmia requires prompt additional therapy. Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

**Precautions:** The bioavailability of the hydrochlorothiazide component of 'Dyazide' is about 50% of the bioavailability of the single entity. Theoretically, a patient transferred from the single entities of Dyrenium (triamterene, SK&F CO.) and hydrochlorothiazide may show an increase in blood pressure or fluid retention. Similarly, it is also possible that the lesser hydrochlorothiazide bioavailability could lead to increased serum potassium levels. However, extensive clinical experience with 'Dyazide' suggests that these conditions have not been commonly observed in clinical practice. Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids, and during concurrent use with amphotericin B or corticosteroids or corticotropin [ACTH]). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Cumulative effects of the drug may develop in patients with impaired renal function. Thiazides should be used with caution in patients with impaired hepatic function. They can precipitate coma in patients with severe liver disease. Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic and hemolytic anemia have been reported with thiazides. Thiazides may cause manifestation of latent diabetes mellitus. The effects of oral anticoagulants may be decreased when used concurrently with hydrochlorothiazide; dosage adjustments may be necessary. Clinically insignificant reductions in arterial responsiveness to norepinephrine have been reported. Thiazides have also been shown to increase the paralyzing effect of nondepolarizing muscle relaxants such as tubocurarine. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. Triamterene has been found in renal stones in association with the other usual calculus components. Therefore, 'Dyazide' should be used with caution in patients with histories of stone formation. A few occurrences of acute renal failure have been reported in patients on 'Dyazide' when treated with indomethacin. Therefore, caution is advised in administering nonsteroidal anti-inflammatory agents with 'Dyazide'. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia is uncommon with 'Dyazide', but should it develop, corrective measures should be taken such as potassium supplementation or increased dietary intake of potassium-rich foods. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Concurrent use with chlorpropamide may increase the risk of severe hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Thiazides may add to or potentiate the action of other antihypertensive drugs.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

**Adverse Reactions:** Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances; postural hypotension (may be aggravated by alcohol, barbiturates, or narcotics). Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and respiratory distress including pneumonitis and pulmonary edema, transient blurred vision, sialadenitis, and vertigo have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components. Rare incidents of acute interstitial nephritis have been reported. Impotence has been reported in a few patients on 'Dyazide', although a causal relationship has not been established.

**Supplied:** 'Dyazide' is supplied as a red and white capsule, in bottles of 1000 capsules; Single Unit Packages (unit-dose) of 100 (intended for institutional use only); In Patient-Pak™ unit-of-use bottles of 100.

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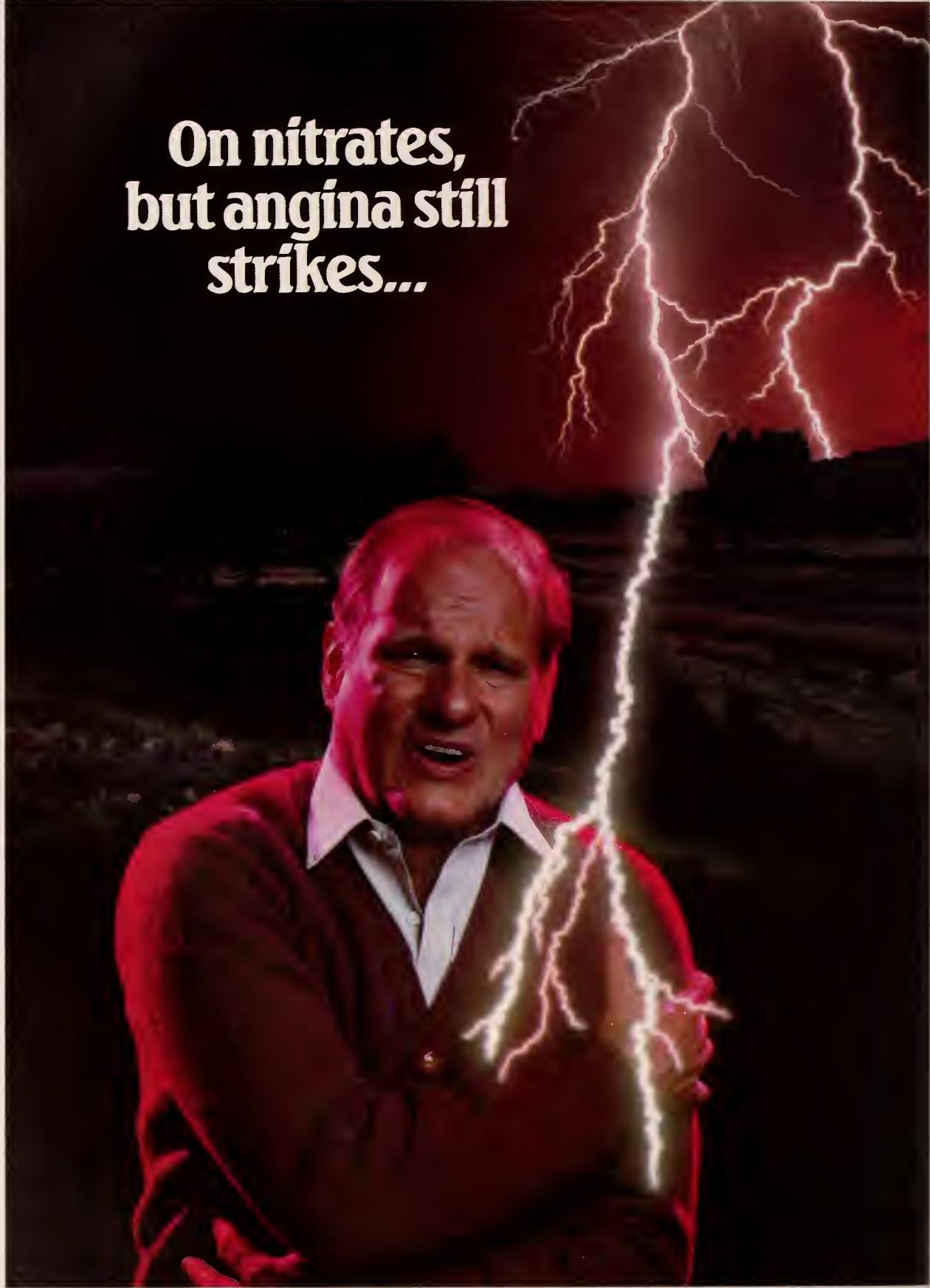
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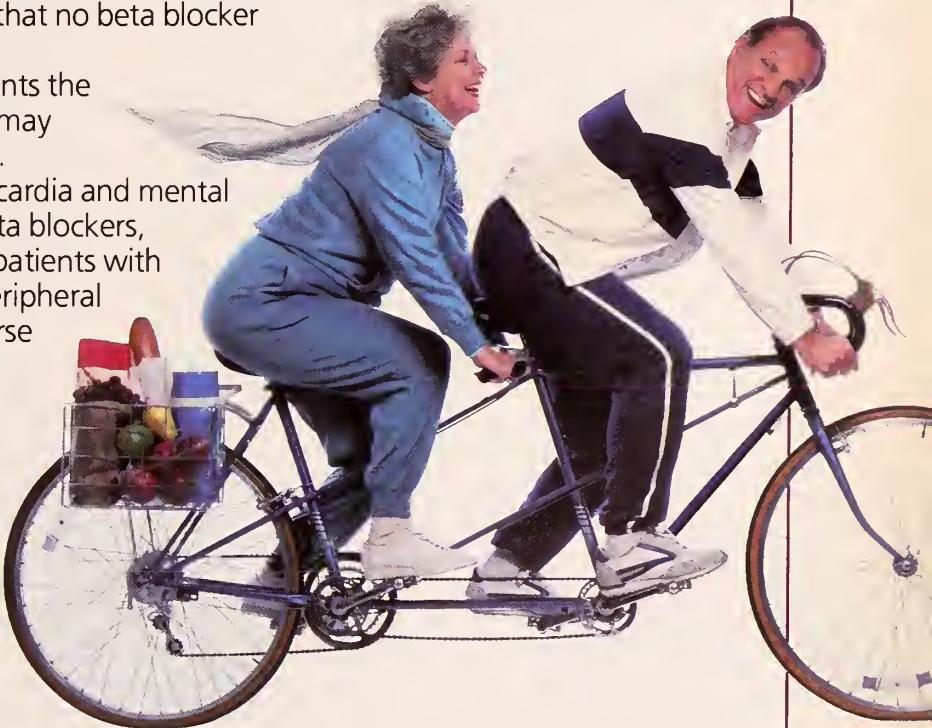
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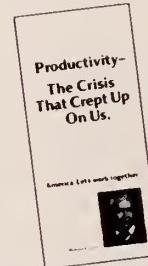


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# Screening Colorectal Cancer: Fecal Occult Blood Tests

WALTER T. BOONE, M.D.

Jackson, Mississippi

SCREENING OF FECAL MATERIAL for occult blood has been used in one form or another since the late 1800s. Early observation of the relationship between disease in the gastrointestinal tract and positive fecal blood tests led to interest in developing better methods for detection of fecal occult blood. Fecal occult blood tests are simple, low in cost and widely applicable.

Stirred by the lack of progress in early diagnosis of colorectal cancer, Greigor rekindled interests in using fecal occult blood tests as a screen with an impregnated guaiac slide test.<sup>1</sup> Currently there are at least eight products that are now available for detecting blood in the stool. These include: Hemo-Fec, Boehringer-Mannheim, West Germany; Quick-Cult, Laboratory Diagnostics, Morganville, N.J.; Colo-Screen, Helena Laboratories, Beaumont, Texas; Colo-Rect, Roche Diagnostics, Nutley, N.J.; Haemoscreen, E. Dot Merck Diagnostica, Darmstadt, West Germany; Fecult, Gama Diagnostica, Houston, Texas; Hema-Chek, Miles Laboratories, Aimes Division, Elkhart, Indiana. In Europe and the United States, most of the clinical and laboratory investigations have centered on the Hemoccult Slide Test.<sup>®2</sup>

Each of these biochemical tests is based on the ability of hemoglobin to oxidize a chromogen, thus producing a colored product. Numerous chromogens have been used including ferrocyanide, 3-aminophthalic acid hydrazide, paraphenylene diamine chlorohydrate, pyramidon, aloin, phenolphthalein, and orthotolidine. With the hemoccult method, natural guaiac resin is impregnated onto filter paper to which a stool specimen is applied. After addition of a stabilized hydrogen peroxide-denatured alcohol developing solution, the hemoccult filter paper slide is observed for a blue coloration, which results from oxidation of a guaiac-derived phenolic compound.<sup>3</sup> The reaction is facilitated by the presence of peroxidase enzymatic activ-

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*Screening stools for occult blood is a logical approach to early detection of colorectal cancer. In this article, the first of three, the author describes factors affecting fecal occult blood tests. The Hemoccult Slide test® depends upon the peroxidase activity of hemoglobin to produce a positive result. Foods high in peroxidase content, iron tablets, aspirin, and nonsteroidal anti-inflammatory agents may produce false-positive results. Ascorbic acid may produce false-negative results. Rehydration of the Hemoccult Slide® prior to addition of peroxide may increase the sensitivity. Utilization of a low peroxidase diet during collection increases the specificity of the test.*

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ity, one source of which is hemoglobin. The Hemoccult II<sup>®</sup> comes with cards of three tests as well as a performance monitor on each slide (see Figure 1). In principle, the hemoccult stool test is similar to other guaiac-base methods for detection of occult blood, but it has been reported to produce fewer false-positive reactions than other qualitative methods for determining occult blood.<sup>4</sup>

There are a variety of factors that affect the results of fecal occult blood testing. As hemoglobin depends upon its peroxidase activity to produce a positive result, considerable attention has been given to peroxidase containing foods in the diet.<sup>5</sup> Table 1 details peroxidase levels in a variety of foods. The serving sizes are approximations. Broccoli, turnips and parsnips, as well as rare red meat, head the list of food with peroxidase activity equivalent to 1.0 ml of blood. This quantity of blood is the normal estimated loss in the gastrointestinal tract daily. However, these vegetables, when well cooked at least for 20 minutes, had no detectable peroxidase activity. Cooked poultry, pork, tuna, ham and bacon have undetectable levels of peroxidase. Apples, oranges, bananas and tomatoes also have little peroxidase activity.

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Dr. Boone is engaged in the private practice of internal medicine and gastroenterology in Jackson, MS.

## COLORECTAL CANCER / Continued

Certain medications can alter fecal occult blood testing. Both ferrous gluconate and ferrous sulfate may produce false-positive hemoccult slide tests.<sup>6</sup> Small doses of vitamin C appear to inhibit occult blood tests producing false-negative results.<sup>7</sup> Aspirin and non-steroidal anti-inflammatory agents should be prohibited during the testing period because of their known irritative effects on the upper gastrointestinal tract.

Physical and anatomic factors affect the ability of the fecal occult blood tests to detect a pathological lesion. Slide tests do not measure total fecal blood but rather a sample of the specimen. Fecal occult blood is not homogeneously distributed in stool specimens, and patient sampling is random. Pathological lesions in the colon have a variable rate of bleeding which is related to the location and size of the lesion. Macrae reported that mean levels of blood loss from cancers were 9.1 ml per day for cecum and ascending colon, 1.5 ml per day for transverse and descending colon, 1.9 ml per day for sigmoid colon, and 1.8 ml per day for rectal cancers. Mean daily blood loss appeared to be related to the site of the cancer but Duke's staging and degree of differentiation were unrelated to levels of blood loss in that study.<sup>8</sup>

Newer variations may improve the effectiveness of fecal occult blood tests. Rehydration of the hemoccult slides leads to an apparent improvement in sensitivity, both *in vitro* and *in vivo*, presumably by a more intimate contact between hemoglobin and guaiac or enhancement of the pseudoperoxidase activity of hemoglobin.<sup>8</sup> Rehydration is accomplished by placing a few drops of water on the underside of the box before adding the peroxide



Figure 1. Hemoccult II® slide test.

solution. By rehydrating the slide and increasing its sensitivity, an increased rate of false-positive determinations can be expected.

Various reports in the literature suggest a false-positive range of 0-20% using the rehydration technique. Our laboratory has been impressed by the rarity of positive fecal occult blood tests in our screened patients. On an unrestricted diet, the author noted no positive slides in 30 consecutive days of fecal occult blood testing with rehydration. Because fecal occult blood tests are the cornerstone of a cancer surveillance program, dietary instructions remain important.

Extending the test period from three to six days may counteract the variability of bleeding. Increasing the number of samples from each stool should obviate the non-uniform distribution of blood in stools, especially from left-sided lesions. Adding bulk in the form of high fiber diet may artificially increase the amount of hemoglobin in the stool by traumatizing the lesion. Patient compliance would be the major drawback to these alterations in testing.

Refinements of the fecal occult blood tests are already emerging. An immunological method of detecting fecal occult blood tests has been described. It is sensitive, has low false-positive rates, and requires no alteration of diet or medication.<sup>9</sup> Considerable enthusiasm is reserved for Hemoquant. This fecal occult blood test, currently under development, is a new, specific, quantitative and non-invasive method of detection.<sup>10</sup>

It will be some time in the future before randomized trials determine the best method of fecal occult blood testing and which variation in collection yields the best results. For the present, instructions that produce the earliest detection of significant lesions with the most patient compliance and the least false-positive results are sought. Until additional information surfaces, the following instructions appear warranted:

1. Avoid vitamin C, iron tablets, ASA, and nonsteroidal anti-inflammatory drugs for three days before and three days during test period.
2. Collect two samples of each of three consecutive days' stools.
3. Test stools for occult blood within six days.
4. Add fiber in the form of peanuts, whole wheat bread and bran cereal during the testing period.
5. Adhere to low peroxidase diet during the testing period. Simply stated, no rare meat or raw vegetables.
6. Rehydrate slides prior to peroxide addition.

If these instructions are followed and patient compliance is average, a single positive stool specimen

TABLE I  
Peroxidase Levels in Foods (5)

<i>Mass of Food With Peroxidase Activity Equivalent to 1 ml.</i>	<i>Food Serving Size</i>	<i>Mass of Food With Peroxidase Activity Equivalent to 1 ml.</i>	<i>Food Serving Size</i>
<i>Blood</i>		<i>Blood</i>	
5 gms.	Broccoli — $\frac{1}{4}$ inch slice — stalk Turnip — 2 teaspoons	50-100 gms.	Peach — 1 medium Celery — 1 cup diced Lettuce — $\frac{1}{5}$ of medium head Spinach $3\frac{1}{2}$ oz.
5-10 gms.	Rare Roast Beef — $\frac{1}{4}$ slice Cantaloupe — 2 teaspoons Cauliflower — $1\frac{1}{2}$ tablespoons Red Radish — small Parsnip — 1 tablespoon	100-500 gms.	Blackberries — $3\frac{1}{8}$ cups Pineapple — $3\frac{3}{4}$ cups Watermelon — $2\frac{1}{2}$ cups Walnuts — 5 cups of halves
10-20 gms.	Artichoke — $\frac{3}{4}$ of 1 small Bean Shoots — $\frac{2}{3}$ cup Cucumber $\frac{1}{5}$ of a medium size Green Beans — $\frac{1}{5}$ of a cup Mushroom — 2 small Parsley — 2 teaspoons chopped Zucchini — $\frac{1}{2}$ cup	500-1000 gms.	Bananas — 10 small Black Grapes — 220 Pears — 5 medium Plum — 20 medium
20-50 gms.	Grapefruit — $\frac{1}{4}$ of medium size Carrot — 1 small Cabbage — $\frac{1}{2}$ cup shredded Potato — $\frac{1}{2}$ of medium size Pumpkin — $1\frac{1}{2}$ oz. Fig — 1 large	1000 gms.	Well cooked roast beef — 2 lbs. Apples — 10 Apricots — 30 Olives — 100 Raspberries — $7\frac{1}{2}$ cups
		Peroxidase undetectable	Roast chicken, turkey, broiled fish, boiled liver, kidney, brains, boiled pork, bran, bacon, boiled rabbit, dates, white grapes, lemon, nectarines, oranges, raisins, strawberries, sultanas, tomato

dictates a full gastrointestinal evaluation. These instructions are designed to increase the sensitivity of a very simple clinical test while holding the rate of false-positives and false-negatives to a minimum.



971 Lakeland Drive (39216)

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## SPECIAL ARTICLE

### James Grant Thompson Memorial Lecture

# Diabetes Mellitus: What Form Will a Cure Take?

PHILLIP GORDEN, M.D.

Bethesda, Maryland

DIABETES MELLITUS impacts on every phase of the practice of medicine. There are approximately 5 million known diabetics in the United States, and it is estimated that there are about 5 million more undiagnosed patients, or about 2% of the total population. This translates into approximately 5% of the population over the age of 40. In selected groups such as the Pima Indians of southwest Arizona, the prevalence of diabetes ranges up to 50% of the population over the age of 40. Thus the absolute numbers of patients with diabetes and its attendant morbidity have great consequences for many Americans.

#### Diabetes as a Systemic Disease

Diabetes presents to the physician in many different forms. The physician's first encounter may be as a major diagnostic problem; in the patient who has been diagnosed, the problem relates to therapy and management.

Because diabetes affects nerves, the patient may present with a cranial neuropathy, a symmetrical distal peripheral neuropathy, a primary mononeuropathy, or some other form of sensory neuropathy. In addition, diabetes affects the autonomic nervous system, causing major motility abnormalities of the stomach, the small bowel and the bladder. Thus

patients may present with upper GI symptoms, diarrhea, urinary retention or impotence.

Diabetic manifestations in the skin include necrobiosis diabetorum, diabetic shin spots, and a variety of fungal and bacterial infections.

One of the major areas where diabetes may manifest itself is in the foot. Typically the diabetic develops a painless ulcer due to microangiopathic disease as well as neuropathy. The lesion heals poorly and becomes infected and in more advanced stages, leads to gangrene and possibly amputation. Over 50% of non-traumatic amputations are carried out in diabetic patients and the great tragedy is that, if appropriately managed early, most of these amputations could be prevented.

The optic fundus is another important site of diabetic involvement. The earliest phase of diabetic retinopathy includes microaneurysms and other background changes in the retina. Later, patients develop hemorrhages and exudates and, in a more advanced stage, new vessel growth or proliferative retinopathy. Proliferative retinopathy may lead to vitreous hemorrhage or retinal detachment. The fundic complications of diabetes are time related. Approximately 50% of patients develop these complications at ten years of disease, and at 20 years of disease approximately 90% of these individuals develop some form of retinopathy. The retinopathy is markedly aggravated by coexisting hypertension. It is estimated that approximately 5,000 new cases per year of diabetic related blindness occur in the United States.

From the Diabetes Branch, National Institute of Arthritis, Diabetes, Digestive and Kidney Diseases, National Institutes of Health, Bethesda, MD.

Read before the 116th Annual Session of the Mississippi State Medical Association, May 19, 1984, Biloxi, MS.

TABLE I  
PATHOGENETIC FACTORS RELATED TO THE  
COMPLICATIONS OF DIABETES

- Increased thickness of capillary basement membranes
- Non-enzymatic glycosylation of protein with alteration of their function
- Abnormal collagen synthesis and degradation
- Aberrant pathways of glucose metabolism — the aldose reductase pathway
- Myoinositol deficiency in nerve cells

One of the other manifestations of diabetes is in the kidney. Diabetes produces intercapillary glomerular sclerosis, which is a major problem in the juvenile onset diabetic. Approximately 40-50% of juvenile onset diabetics will develop this form of renal disease. It is much less common in the adult onset diabetic, occurring in only 2-3% of patients.

Macrovascular disease involving the coronary arteries and other large vessels is also prominent in diabetic patients.

Finally, the acute manifestations of diabetes relate primarily to the metabolic derangement, eg, nonketotic hyperosmolar coma, diabetic ketoacidosis, and hypoglycemia in insulin treated patients.

#### **Reconciling the Varied Manifestations of Diabetes**

Although we diagnose diabetes on the basis of the derangement in carbohydrate metabolism, ie, hyperglycemia, we recognize that it is a disease affecting all forms of fuel and energy regulation. Thus proteins, carbohydrates, and fats are similarly affected in diabetic patients. While these metabolic derangements have long been recognized in diabetes, emerging new experimental data suggest a relationship between these derangements and the systemic features of the disease (see Table I). For instance, high levels of blood glucose can lead to glycosylation of tissue proteins and this alteration leads to abnormalities in function of these tissues. Second, it is known that at very high levels, glucose is taken up into tissues by abnormal pathways which convert it into non-absorbable alcohol-like substances that are not further utilized. This may lead to osmotic swelling in nerves or other tissues which then leads to subsequent damage. These are but two examples of how the metabolic derangement might affect multiple organ systems. The major hypothesis is that metabolic derangement, in several different ways, leads to the various pathologic features that characterize diabetes mellitus.

TABLE II  
EXAMPLES OF DISEASE "CURES"

Disease	"Cure"
Pneumococcal Pneumonia	Penicillin
Poliomyelitis	Live virus vaccine
Duodenal Ulcer	H <sub>2</sub> Blockers (cimetidine)

TABLE III  
CHARACTERISTICS OF INSULIN-DEPENDENT  
DIABETES MELLITUS (TYPE I DIABETES)

- Insulinopenic and dependent on exogenous insulin for life
- Ketosis-prone under basal conditions
- Onset generally in youth but may occur at any age
- Islet cell antibodies frequently present at diagnosis
- Associated with HLA-DR-3, DR-4, and the combination of these haplotypes

#### **What Do We Mean by a Cure?**

Cures mean different things to different people. Cure refers to the elimination of the manifestations of a disease. Obviously, any discussion of a cure in diabetes is speculative but it forms a basis for further investigation and for discussion. Let us consider three examples of what might be considered cures (see Table II). In pneumococcal pneumonia we would accept penicillin as a cure. In poliomyelitis we would accept the oral vaccine as a preventative and thus a cure. In duodenal ulcer, using our above definition, we would accept the H<sub>2</sub> blockers such as cimetidine as a cure. It is important to note that in the first two examples we require some information about the cause of the disease, ie, in pneumococcal pneumonia we are specifically treating the pneumococcus with the antibiotic, and in polio we are specifically immunizing against the virus. In the third example, however, duodenal ulcer, we know very little about the cause. Therefore, in the absence of more specific knowledge, we accept an intermediate form of cure, ie, suppression of the disease. If we are to discuss the form that a cure may take in diabetes, we must be more specific. For the purposes of this discussion, we will divide diabetes into its two major categories, that is, insulin-dependent diabetes and noninsulin-dependent diabetes.

#### **Insulin-Dependent Diabetes Mellitus**

Insulin-dependent diabetes mellitus is characterized by several features (see Table III). At its outset this disease is associated with islet cell antibodies

which are antibodies that spontaneously develop against the islet cells. Further, the disease is characterized by a high frequency of particular HLA haplotypes; these include HLA DR-3, DR-4, and the combination of these two. These HLA proteins are markers on cells that, for reasons not completely understood, are more prevalent in individuals with Type I or insulin-dependent diabetes mellitus. The third characteristic of this disease is a mononuclear infiltrate into the beta cells of the islet, referred to as insulitis. This gradually leads to the destruction of the islets and essentially cessation of insulin secretion.

Recently an animal model has been recognized which is similar to the human disease. This animal model is referred to as the BB-rat. The BB-rat spontaneously develops a diabetic picture and the same islet cell pathology as seen in human disease. It is now known that diabetes can be prevented in the BB-rat by infusion of blood cells from normal rats. It is believed that specific lymphocytes from the normal rat are able to suppress abnormal lymphocytes in the diabetes-prone rat; further it is believed that a soluble material, some form of a lymphokine, may be responsible for the suppression of the abnormal cells in the diabetic animal. If this hypothesis is verified, it will indicate very strongly that Type I diabetes is an autoimmune disease and further, it will have important implications for the treatment of this disease.

#### **Noninsulin-Dependent Diabetes**

Noninsulin-dependent diabetes refers to a heterogeneous group of disorders with a set of general characteristics (see Table IV). Insulin resistance is one of the major manifestations of this form of diabetes and it is of note that the vast majority of these patients are obese. Obesity is known to be an insulin-resistant state. Thus both Type II or noninsulin-dependent diabetes and obesity lead to a situation where a normal amount of insulin is ineffective in controlling glucose metabolism: insulin is deficient only in a relative sense. The higher the blood sugar, the more deficient the insulin becomes. But this impoverished insulin response can be reversed by lowering the blood sugar by diet or some other means, and relatively normal insulin secretion can be restored. We can now identify several features involved in the insulin resistance of Type II diabetes. These features include new knowledge about the nature of the target cells, the major targets for insulin action being the liver, muscle, and fat cells. All of these tissues have proteins on the surface of their cells, known as insulin receptors. The function of

TABLE IV  
CHARACTERISTICS OF NONINSULIN DEPENDENT  
DIABETES MELLITUS (TYPE II DIABETES)

- Insulin levels decreased, elevated, or normal
- Not ketosis-prone under basal conditions
- Onset generally after age 40 but may occur at any age
- May require insulin for control of symptoms or of fasting hyperglycemia
- 60-90% are obese

TABLE V  
MAJOR CARDIOVASCULAR RISK FACTORS

- Hypertension
- Diabetes
- Hyperlipidemia
- Smoking
- Obesity

the receptor is to recognize insulin among all the other proteins in blood and to initiate the actions of insulin in controlling fuel metabolism. In hyperglycemic obese individuals insulin receptors may be reduced on the surface of the cell. Since it is the net concentration of insulin and receptor that leads to the final response, a deficiency in receptors will lead to a diminished response, even in the presence of normal amounts of insulin. Under appropriate dietary conditions, insulin receptors may be restored to normal. Thus, it is apparent that we are dealing with a double defect in noninsulin-dependent diabetes; a defect in insulin secretion and a defect in insulin action. The most important feature, however, is that both of these abnormalities are reversible. Further actions of insulin on the cell are less well understood but it is clear that many enzymatic changes that take place in the cell are reversible.

#### **What Can We Do Now?**

Another picture is emerging that indicates that we can improve the prognosis for our diabetic patients now. First we must recognize the major cardiovascular risk factors (see Table V). All of these risk factors can be treated and are of the utmost importance in the diabetic patient.

It must be remembered that these risk factors are additive and even may be synergistic. Thus a diabetic patient who smokes is enormously increasing his risk of coronary artery disease and myocardial infarction. Further, it is clear that control of hypertension has a major effect on the amelioration of diabetic retinopathy and probably kidney disease. It is now

TABLE VI  
TREATMENT AND MANAGEMENT MODALITIES

Metabolic	Other
Blood glucose and glycosylated Hgb	Laser
Intensive insulin Rx	Vitrectomy
Nutritional	Dialysis
Oral hypoglycemic drugs	Transplantation

clear that specific modalities of therapy such as laser photocoagulation have a marked effect on diabetic retinopathy. For instance, the diabetic retinopathy study has shown that laser photocoagulation of proliferative retinopathy may reduce unfavorable events by over 60%.

Finally, we now recognize the value of intensive insulin therapy in the pregnant diabetic. Very carefully monitored glucose values, using all available methodology such as home glucose monitoring and multiple insulin injections or infusion pumps, have led to a major reduction in fetal and maternal mortality and morbidity in the diabetic patient. In fact, these have been reduced almost to the level of the nondiabetic. For other therapeutic modalities see Table VI.

#### What Form Will a Cure Take?

Now let us return to our original question. Having discussed some of the specific details of diabetes, we can return to our examples of cures (see Table II). It seems most likely that the cure of insulin-dependent or Type I diabetes will take the form of example one, Table II. As it is likely that we are dealing with an autoimmune disease, we will develop much more specific forms of controlling this disordered immune response. Recently, a clinical trial in Canada has indicated that the drug, cyclosporin A, may prolong the "honeymoon" period for the juvenile onset diabetic up to one year and, as previously mentioned, there are several modalities that will correct the diabetes of the BB-rat. Thus there is every reason to believe that a much more specific form of treatment will be developed for the Type I diabetic. Further, it is possible that a subset of these patients has a disease with a viral etiology. In that case it is possible to imagine that a vaccine will be developed for this subset of patients. It is important to emphasize that human diabetogenic viruses have not been recognized except in isolated cases and we do not yet have drugs that regulate a highly specific feature of the immune response without having unfavorable

TABLE VII  
EXPERIMENTAL APPROACHES

- Pharmacologic (manipulation of target cell)
- Genetic manipulation
- Islet transplantation
- Pancreas transplantation
- Artificial pancreas
- Selective immunologic Rx
- Pharmacologic (local tissue effects)

effects on other parts of the immune system (see Table VII).

Finally, it is more likely that a cure in Type II diabetes will take the form of our example three, Table II. We do not know the specific cause of most forms of Type II diabetes, but it is likely that we will develop forms of treatment to manage specific abnormalities (see Table VII). First, we will have better ways to control the blood glucose in general. Second, there will be pharmacologic means of controlling the local glucose concentration at the tissue level. Further, it is highly likely that we will develop pharmacologic means to manipulate the insulin receptor or intracellular events which will bypass the necessity of insulin, *per se*. The major point is, therefore, to try to understand in detail, the basic and more fundamental defects related to Type II diabetes.

#### Debt of Gratitude

I would like to express my gratitude to Dr. J. M. Ford, Baldwyn, Mississippi. He taught me at a very early age that we must do all we can for the sick, with what we have. Sometimes all we can offer is ourselves. These lessons were frequently learned on a muddy country road in the middle of the night.

#### Dedication of the Lecture

I would like to dedicate this lecture to the memory of J. B. Baker (1907-1983), who was the superintendent of the Baldwyn public school system for 32 years. His entire life was dedicated to the education of young people. Certainly there is no higher calling.

#### Conclusion

There is every reason for optimism, therefore, if we remember the principles embodied in the above statements. That is, do all we can with what we have and continue to educate ourselves and our young people.



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## The President Speaking

### Business-Medicine Coalitions

**Ellis M. Moffitt, M.D.  
Jackson, Mississippi**

For the last three months I have been giving you information regarding alternate health care delivery systems, specifically PPOs. Some of you have been confronted with the possibility of one being organized in your community by one of the businesses. Others see these looming on the horizon as another somebody trying to get at the health care dollar. The main thing is, do not panic. Of all the alternate systems, the PPO is the least offensive.

There is another way to perhaps give business a better handle on their health care costs — the coalition of medicine and business sitting down with each other and discussing mutual problems. If you like the practice of medicine in the fee-for-service mode, this is an excellent opportunity for you to help yourself and the business community as well. They do not understand our problems and we don't fully understand theirs. I must admit though, we understand more of theirs than they do of ours.

Some efforts have been made to discuss with business health-related problems. These efforts have been on a statewide level. There has been some local activity, also. Two or three years ago we had the executive committee of the Chamber of Commerce as our guests at a Central Medical Society meeting. There was considerable dialogue relating to the cost of health care. I remember Mr. Henry Holman's remarks to the group concerning his escalating health care costs. He felt he was going to have to do something to bring his health care costs down — have higher deductibles for his employees, educate his employees on health care. He was not going to be able to let health care costs continue the spiral.

Business has a tough time communicating with us. So, when you set up a meeting have more business representatives than you have physicians. Have an agenda. For example: you might discuss inappropriate use of hospital services (use of emergency room for non-emergencies); lack of employee health cost awareness; problems with worker compensation and sick leave or disability; or lack of employee incentives with regard to health care utilization when benefits are "free." Other topics might be employee life styles — initiating an employee health education program — or impact of increasing medical malpractice premiums on the cost of health care. The business representatives may have specific items they would like to discuss.

*(Continued on page 114)*

## EDITORIALS

# JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION

VOLUME XXVI, NUMBER 4  
APRIL 1985

### Eureka! The Solution To Malpractice Problem

EUREKA! The complete solution to our overwhelming malpractice problem has come to me in a flash. Like most great discoveries it is simplicity itself. Try this on for size.

In the November 22 papers I found reports of a State Supreme Court ruling that bestowed "the same immunity from legal action as other public officials performing their duties" on a county health officer in a malpractice suit brought against him for giving INH to a tuberculosis patient who died of liver failure triggered by the drug.

All of us are aware of the steady increase in malpractice suits which will undoubtedly continue, offering a bonanza to busy trial lawyers and their hungry (and I don't mean for food!) clients.

The size of settlements on brain-damaged infants is staggering, the shockwaves from which are rocking the risk management of all the professional liability insurance companies, and that includes our own Medical Assurance Company. The small hospitals will be forced to buy fetal monitors in a vain effort to win some of these suits, train staff to interpret the tracings, and be on the ready to blast the patient off to a "center" for an emergency C-section because the fetus sneezed! But that's another story —

We could put a stop to *all* malpractice action just by becoming "public officials" and go to work for the Health Department. An amendment to the Health Care Bill, from which the Medical Licensure Board escaped by the skin of its teeth, would do it. Then we would be one big miserable family with a whole new gamut of things to bitch about. But in one fell swoop, *no* malpractice. VOILA!

A. A. DERRICK, JR., M.D.  
Associate Editor

### COMMENT

(Editor's Note: The following letters, copies of which were received by the JOURNAL, are reprinted here with the permission of both parties.)

Mississippi Foundation for Medical Care, Inc.  
P. O. Box 4665  
Jackson, Mississippi 39216

Attention: Joyce Partridge, Director of Review Operations

Dear Madam:

Your assertion regarding my judgment of *any* patient's hospitalization without *your* examination of that same patient, under the same condition is, to say the very least, asinine.

I resent the letter that was written to my patient stating that her admission to the hospital was "not medically necessary." Although this copy was the first letter of this nature I have received, I have seen several written to my colleagues who are of the same opinion as myself.

My mother also received one of these letters regarding her recent hospitalization. My mother, who hardly qualifies as a dummy or a malingeringer, could not understand the significance of that revelation, and I, as well as her attending physician, was wont for an explanation.

Your letters imply a credibility judgment by you of our capabilities as physicians. You, nor anyone else in your office, is in a position to question my, or any other physicians' ability to know when a patient is sick enough to be hospitalized unless you are present in the clinic or the emergency room and also examine that patient and are aware of that patient's social, mental, and medical condition.

## COMMENT/Continued

According to your letter, "a qualified physician reviewer representing the Mississippi Foundation for Medical Care" reviewed my patient's case and determined that the "admission was not medically necessary." I don't suppose one could really blame the guy for wanting to remain anonymous.

Several months earlier I received a bulletin from the Mississippi Foundation for Medical Care inviting me to become a member. This bulletin said something to the effect that if we didn't police ourselves then someone worse would. Sounded good to me, I was all for utilization review, so I filled out the membership form and sent it back to you. This "letter" is the only correspondence I have received from the Mississippi Foundation for Medical Care to date.

If the goal of the Mississippi Foundation for Medical Care is to besmirch the quality of our care in the eyes of our patients as well as to imply to the patient that Medicare or some unknown entity doesn't even believe that they were sick, then I would rather *not* be a member. This is not my idea of "peer review."

I plan to inform any patient who receives such a letter to write their congressman.

It is hard as hell to practice good medicine while fighting DRGs, keeping our admissions and inpatient days to a bare minimum, avoiding malpractice suits, keeping our community hospitals alive, our private practices afloat, our patients well, their families happy and in the meantime hopefully preserving our own sanity.

I think I speak for the average primary care physician in the State of Mississippi who will continue to strive to practice medicine to the utmost of our ability, but with the *patient's health* as our number one priority.

Most sincerely yours,  
DWALIA SOUTH, M.D.

Dwalia South, M.D.  
Tippah County Hospital  
Ripley, Mississippi 38663

Dear Doctor South:

This is in reply to your letter dated January 31, 1985. The letter you received from Joyce Partridge, Director of Review Operations, was simply to in-

form you of actions that have been taken regarding a particular hospitalization. Ms. Partridge does not review records; a physician, who is a practicing physician with hospital admitting privileges in the state of Mississippi, reviewed your records and denied the admission.

MFMC has approximately 158 physicians who are actively involved in record review. Our Board of Directors is elected from the general membership which numbers 1600 Mississippi physicians. If you review the enclosed list of the Board of Directors and members of the Regional Review Committees you will see that majority of these physicians are primary care physicians, a number of whom are involved in active leadership of the Mississippi Academy of Family Practice. The denial process and letter are dictated by the Health Care Financing Administration (HCFA) with whom we have contracted to perform peer review activities for Medicare patients. This process has recently been changed and should clarify the issue for the patient and physician. The changed denial process will afford the physician the opportunity to present additional data so that a denial may not be required. I believe that once this process is in effect, it will avoid some of the conditions of which you complained. There is also an appeals mechanism, whereby an initial decision may be reconsidered.

You say that you support utilization review, which, I assume means that you support strictly peer review, in other words, having a physician review your records. It is true that the review physician does not see the patient, but it is also true that it is your obligation under statutory law, if you are treating Medicare patients, that you must document the reasons for admitting the patient, and that you must admit that patient to the hospital only if necessary.

I am confident that you are an excellent physician. Perhaps you should examine your practice patterns to assure that they meet the requirements for caring for the Medicare patient. If you would like, I would be glad to sit down with you, here in the office, with individual charts, and go over the discrepancies that were identified in these hospital admissions.

The Mississippi Foundation for Medical Care belongs to the physician membership of the state of Mississippi and I think that our actions show that we are responsive to the needs of our fellow physicians.

If I can be of service to you, please feel free to call.

Sincerely yours,  
J. S. McILWAIN, JR., M.D.  
Medical Director  
Mississippi Foundation for Medical Care



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# AMA President to Address House of Delegates

Joseph F. Boyle, M.D., president of the American Medical Association, will address the opening session of the MSMA House of Delegates on Thursday, May 16, 1985. Dr. Boyle is a private practitioner of internal medicine and diseases of the chest from Los Angeles, California. He became President of the American Medical Association at its annual meeting in June 1984.

Elected to the AMA Board of Trustees in 1975, Dr. Boyle served as its chairman from June 1981 to June 1983. He has long been active in organized medicine at the local, state and national levels. He has served in many elected capacities, including president of the California Medical Association and the Los Angeles County Medical Association, speaker of the California Medical Association House of Delegates, and delegate to the AMA House of Delegates.

Born in Jersey City, New Jersey, on November 21, 1924, Dr. Boyle received his M.D. degree from Temple University School of Medicine. His postgraduate work was done in both New Jersey and California. He is a diplomate of the American Board of Internal Medicine.

In addition to being on the staff of several Los Angeles area hospitals, Dr. Boyle has been associate clinical professor of medicine at the University of Southern California School of Medicine since 1954, and past pres-



*Dr. Boyle*

ident of the California Chapter of the American College of Chest Physicians.

Recent honors include receiving the Distinguished Internist of 1983 Award from the American Society of Internal Medicine, the 1984 Presidential Commendation from the American Psychiatric Association, the title of Temple

University Alumni Fellow, and the 1984 Temple University Alumni Association School of Medicine Certificate of Honor. Doctor Boyle serves as Chairman of the Steering Committee for the Health Policy Agenda for the American People.

Dr. Boyle's community activities have included the Los Angeles Area Chamber of Commerce, the California State Chamber of Commerce, where he recently completed a three-year term on its Board of Directors, the State of California Disaster Office, the California State Air Resources Board, President's Advisory Committee on Environmental Quality, and the California Citizens Committee on Tort Reform. He had served as president of the Board of Directors of the Tuberculosis and Health Association of Los Angeles County and is a member of the Board of Directors of the National Organization on Disability.

Dr. Boyle is the author of numerous papers on pulmonary and respiratory diseases.

# 117th Annual Session

Mississippi State Medical Association

May 15-19, 1985

Biloxi

On May 15, 1985, the 117th Annual Session of the Mississippi State Medical Association will get underway. The combination scientific/business meeting will be held at the Royal d'Iberville Hotel in Biloxi. Reservations should be made directly with the hotel by completing the reservation cards mailed to MSMA members last month or by calling 388-6610 (Biloxi).

## House of Delegates

Sessions of the House of Delegates are scheduled for Thursday, May 16 and Sunday, May 19. Both meetings will begin at 9:00 a.m. Dr. Frank Boyle, president of the American Medical Association, will address the opening session. Delegates will also hear an address by Dr. Ellis M. Moffitt of Jackson, MSMA president. The inauguration of Dr. Ralph L. Brock of McComb as 1985-86 president will take place during the final session.

Delegates will cast ballots for more than 80 nominees who have been selected by the Nominating Committee to fill nearly 30 vacancies in association offices. A list of candidates was mailed to all members 60 days prior to the elections, in accordance with the association's bylaws.

## Concurrent Meetings

Among the many medical related groups which have scheduled meetings in conjunction with the annual session are the Mississippi Foundation for Medical Care and the Medical Assurance Company of Mississippi. The Mississippi State Board of Medical Licensure will meet during the week, as will more than a dozen specialty societies and three medical alumni organizations.

## Scientific Assembly

Continuing medical education credit will be awarded for the scientific assembly, which begins Friday, May 17, with the Surgery Plenary Session and continues Saturday, May 18, with the Medicine Plenary Session. The Mississippi Chapter of the American College of Surgeons will hold a three-

hour scientific program on Friday afternoon, as will the Mississippi Chapter of the American Academy of Emergency Physicians. Highlighting the scientific presentations will be Dr. Ted Huang of the University of Texas at Galveston, who will present the fifth annual James Grant Thompson Memorial Lecture on Friday morning.

## Special Events

Tennis, golf and fishing are on the agenda of special events again this year.

The annual president's reception is scheduled for Wednesday night, and the annual membership banquet will be held on Friday night. On the concluding night (Saturday) there will be a Casino Party for MSMA members and MSMA Auxiliary. Proceeds from the party will benefit special projects of the Auxiliary.

## OFFICIAL CALL

To all members of the Mississippi State Medical Association:

The 117th Annual Session of the Mississippi State Medical Association is called to meet at Biloxi, Mississippi, on Wednesday, May 15, 1985, pursuant to Article V of the Constitution. The House of Delegates will be convened at the Royal d'Iberville at 9:00 a.m. on May 16.

The Scientific Assembly will meet during May 17-18, 1985.

No member or guest will be permitted to participate in any aspect of the annual session until regularly registered.

ELLIS M. MOFFITT, M.D.  
President

J. ELMER NIX, M.D.  
Secretary-Treasurer

# Scientific Program

## 117th Annual Session

### Friday, May 17 MSMA Plenary Session (Surgery)

- 9:00 a.m. James Grant Thompson Memorial Lecture  
*Surgical Management of Poisonous Snakebite*  
    Ted T. Huang, MD, University of Texas Medical Branch, Galveston, TX
- 10:00     *Alcoholism and Anesthesia*  
    David L. Bruce, MD, University Medical Center, Jackson, MS
- 11:00     *Developments in Treatment of Urinary Stones*  
    A. M. Matthews, MD, Gulfport, MS
- 11:10     *A Modified Approach to the McIndoe Vaginoplasty*  
    Steve Box, M.D, University Medical Center, Jackson, MS
- 11:20     *Update in Orthopedics*  
    James Hughes, MD, University Medical Center, Jackson, MS
- 11:30     *Update in Pathology*  
    Ben F. Martin, MD, Columbus, MS
- 11:40     *Advances in CPR*  
    Robert Jorden, MD, University Medical Center, Jackson, MS
- 11:50     *Use of the Laser in Otolaryngology*  
    Larry Day, MD and J. Robert Coltharp, MD, Hattiesburg, MS

### Friday, May 17 American College of Surgeons, Miss. Chapter

- 2:00 p.m. *Wound Coverage: Grafts and Flaps* — Dr. Huang
- 3:00       *The Anesthesiologist as Consultant* — Dr. Bruce
- 4:00       *Thoracic Aortic Injuries: Ten Years' Experience at UMC*  
    Will Coltharp, MD, University Medical Center, Jackson, MS

### Friday, May 17 American College of Emergency Physicians, Miss. Chapter

- 2:00 p.m. *Case Studies in Emergency Medicine*  
    Robert Jorden, MD, University Medical Center, Jackson, MS
- 3:00       *Basic Trauma Life Support Course*  
    Eloise Bell, RN, Mississippi Baptist Medical Center, Jackson, MS
- 3:45       *Cost Containment in Emergency Medicine*  
    William W. Bradford, MD, Waveland, MS

### Saturday, May 18 MSMA Plenary Session (Medicine)

- 8:30 a.m. *New Trends in Mid-South Health Care Delivery*  
    Roger N. Struble, vice president, Memphis Memorial Health Care Systems, Inc.,  
    Memphis, TN
- 9:00       *New Directions in Federal Health Legislation*  
    Congressman Wayne Dowdy, Washington, DC
- 10:00      *Calcium Channel Blockers in Cardiovascular Disease*  
    W. Theodore Steudel, MD, director, Coronary Care Unit, Madigan Army Medical  
    Center, Tacoma, WA
- 10:35      *Colorectal Cancer Screening Program*  
    Judy Gearhart, MD, Mississippi Cancer Society
- 10:45      *Sleep Too Much? Sleep Too Little? What Can Be Done?*  
    Edgar Draper, MD and Lawrence S. Schoen, PhD, University Medical Center, Jackson,  
    MS
- 11:15      *Exogenous Dermatitis*  
    Howard I. Maibach, professor of dermatology, University of California, San Francisco,  
    CA

## MEDICAL ORGANIZATION

### MSMA Membership Banquet Features Jeanne Robertson

During the 117th Annual Session the MSMA will join a long list of organizations which have heard Jeanne Robertson's unique brand of humor. She is featured speaker at the annual MSMA/MSMA Auxiliary banquet, Friday, May 17, at the Royal d'Iberville Hotel in Biloxi.

At 6'2" Jeanne Robertson is the tallest woman ever to compete in the Miss America contest. And, as she puts it, that makes her the tallest woman ever to *lose* the Miss America contest! But she did win the title of Miss Congeniality (which she says is presented to the contestant *least* likely to win Miss America!)

It was her year as Miss North Carolina which led her to a career as a professional speaker, a job which keeps her on the road ten months out of the year, averaging 150 speeches each year. That she is successful at it may be evident from the list of organizations seeking her, from the testimonials of those who have heard her, and from her honors.

She is one of a select group of about 60 people — including Dr. Norman Vincent Peale, Art Linkletter, President Ronald Reagan, and Earl Nightingale — to receive the coveted CPAE Award of the 2,500-member National Speaker Association. The NSA presents the award, recognizing excellence in public speaking, to a maximum of four people each year.

She bills herself as "a tall lady with a tall sense of humor." As a humorist, she also delivers a potent motivational message in a down-to-earth, entertaining style.

### Tennis, Golf, Fishing Events On Annual Session Calendar

Registration is underway for MSMA's tennis tournament, golf tournament, and deep sea fishing rodeo. All three events are on the schedule of activities for the 117th Annual Session in Biloxi.



The tennis tournament, sponsored by the Medical Assurance Company of Mississippi, is set for Saturday, May 18, at Hiller Park Courts in Biloxi. Matches will begin at 1:00. Trophies will be awarded in men's and women's doubles competition. Tennis balls and refreshments will be provided.

Golf tournament participants will gather at the Sunkist Course at 11:30 a.m., Friday, May 17. Trophies will be presented for low gross and low net scores. Prizes will be awarded for longest drive and closest to the pin. Registration is limited to 48 golfers.

Two of the Gulf Coast's finest charter boats have been reserved for the fishing rodeo, set for Friday and Saturday, May 17 and 18. Boats will leave from the Broadwater Marina at 7:00 a.m. and return at 3:30 p.m. The \$70.00 registration fee covers boat rental for the day, soft drinks and sandwiches. Prizes will be awarded for largest catch in Spanish mackerel, bonito and jackfish.

### Hospital Medical Staff Section Schedules First Meeting

The first meeting of MSMA's Hospital Medical Staff Section will take place at 2:00 p.m., Wednesday, May 15, at the Royal d'Iberville Hotel.

Scheduled in conjunction with MSMA's 117th Annual Session, the meeting is designed to serve as a forum for discussion of hospital medical staff issues. Physicians and hospital administrators are encouraged to participate.

The program includes a discussion of current legal issues impacting on the hospital medical staff. This discussion will be conducted by B. J. Anderson, J.D., of the American Medical Association's Office of General Counsel.

Charles C. Stamey, M.D., vice-chairman of the AMA's Hospital Medical Staff Section, will outline the organization's views of the role and importance of hospital medical staff sections within the federation.

Paul Ellwood, M.D., president of Interstudy, Inc., will address the group on "Joint Ventures."

Serving as acting chairman of the new MSMA Hospital Medical Staff Section is Sidney O. Graves, M.D., of Natchez, one of MSMA's delegates to the AMA.

# 117th Annual Session

**May 15-19, 1985**

## **Summary of Activities**

*Wednesday, May 15*

## MSMA Hospital Medical Staff Section MSMA President's Reception

*Thursday, May 16*

Reference Committee Breakfast  
MSMA House of Delegates  
Miss. Foundation for Medical Care  
Miss. State Board of Medical Licensure  
Reference Committee Hearings  
Medical Alumni Reunions

Friday, May 17

Fishing Rodeo  
MSMA Past Presidents Breakfast  
MSMA Council on Medical Education  
MSMA Plenary Session (Surgery)  
MSMA Fifty Year Club  
Miss. EENT Association  
Miss. Ob-Gyn Society  
American College of Surgeons  
American College of Emergency Physicians  
American College of Pediatrics  
Miss. Urology Society  
Medical Assurance Co. of Miss.  
Golf Tournament  
MSMA/MSMA Auxiliary Membership  
Reception and Banquet

*Saturday, May 18*

Fishing Rodeo  
MSMA Plenary Session (Medicine)  
Miss. Pathology Association  
Miss. Academy of Family Physicians  
Miss. Radiology Society  
Miss. Society of Internal Medicine  
Miss. Dermatology Society  
Tennis Tournament  
MSMA/MSMA Auxiliary Casino Party

*Sunday, May 19*

**Continental Breakfast  
Protestant and Catholic Services  
MSMA House of Delegates**

## **"Boss Moffitt's Speakeasy" Is Casino Party Theme**

The special activities calendar of MSMA's Annual Session gets a new attraction this year with the addition of a Casino Night Party, sponsored by the MSMA Auxiliary.

Join in the fun at "Boss Moffitt's Speakeasy," Saturday, May 18, from 8:00 p.m. until midnight.

International Productions of New Orleans has contracted to conduct the Casino Party.

Along with the casino events there will be entertainment and an auction of exciting prizes. Besides providing an entertaining conclusion to the five-day annual session, the event will benefit special projects of the Auxiliary.

## **Fifty Year Club Will Meet May 17**

The MSMA Board of Trustees, sponsor of the association's Fifty Year Club, will honor the half-century-plus members at a special luncheon on Friday, May 17, at the Royal d'Iberville Hotel.

Members of this special organization include: Drs. S. Lamar Bailey of Kosciusko; T. J. Barkley of Belzoni; Eldon Bolton of Biloxi; Sam B. Caruthers of Grenada; J. T. Davis of Corinth; J. Gordon Dees of Jackson; G. Swink Hicks of Natchez; Stanley Hill of Corinth; Joseph Kuljis of Biloxi; Julius L. Levy, Sr., of Clarksdale;

Earl L. Laird of Union; Lawrence W. Long of Jackson; Veronica M. Pennington of Jackson; A. R. Perry of Natchez; Tom Ramsay of Biloxi; Lee R. Reid of Jackson; G. T. Sheffield of Gulfport; Omar Simmons of Newton; William C. Simmons of Bay Springs; Guy T. Vise, Sr. of Meridian; Earl T. White of Greenville; and Homer A. Whittington of Natchez.

## James Grant Thompson Memorial Lecture

Friday, May 17 9:00 a.m.

Surgical Management of Poisonous Snakebite

Ted T. Huang, MD, University of Texas  
Medical Branch, Galveston

# **Mississippi State Medical Association Auxiliary**

## **Convention 1985**

*Wednesday, May 15*

- 12 noon      Registration, Hospitality  
5:00 p.m.    MSMA President's Reception

*Thursday, May 16*

- 8:00 a.m.    Registration  
9:00          Hospitality, AMA-ERF Boutique  
9:00          MSMA House of Delegates  
10:30         Preconvention Board Meeting  
1:30 p.m.    Workshop — "Flower Arranging"  
                    Ralph Null, AIFD, AAF, Mississippi State Uni-  
                    versity  
6:00          Tulane, Tennessee Alumni Receptions  
7:00          Ole Miss Alumni Banquet

*Friday, May 17*

- 8:00 a.m.    Registration  
9:00          Hospitality, AMA-ERF Boutique  
9:00          General Session  
12 noon      Luncheon and Style Show  
                    Sandra Ashford, (The Ashford Collection)  
2:30 p.m.    Postconvention Board Meeting  
                    Workshop — "Reaching Out: 1985-1986"  
                    (Mrs. William R. McPhee, President-elect, AMA  
                    Auxiliary)  
6:30          MSMA/MSMA Auxiliary Reception and Banquet

*Saturday, May 18*

- 8:30 a.m.    Past Presidents Breakfast  
10:00         Tour: Walter Anderson Home and Studio  
8:00 p.m.    Casino Party

*Sunday, May 19*

- 7:30 a.m.    Continental Breakfast  
8:00          Church Services  
9:00          MSMA House of Delegates



## **Alzheimer's Disease Clinic Established at UMC**

A team at the University of Mississippi Medical Center has established the state's first clinic for patients with those conditions — including Alzheimer's disease — marked by decreasing mental function and dementia.

The clinic will provide thorough physical work-ups and psychological evaluations, make recommendations for treatment, and provide support for families.

Beyond these goals, clinic director Dr. Andrew Bishop will examine the content of patients' spinal fluid in hopes of finding a more definitive way of diagnosing Alzheimer's.

"Right now, a positive diagnosis is possible only after autopsy when we can see the concrete changes in brain tissue," Dr. Bishop said. "Otherwise, the diagnosis is usually made by eliminating other possible reasons for the person's behavior."

Untreated depression in the elderly, for example, may look amazingly like Alzheimer's, Bishop said, and depression is easily treated.

The substance the clinic team will measure in the spinal fluid is a protein called somatostatin. Although scientists think that the protein is not a primary factor in Alzheimer's, it is released into the nervous system simultaneously with acetylcholine, a neurotransmitter whose deficit is closely associated with Alzheimer's.

"One of the positive ways of diagnosing Alzheimer's would be to detect a decrease in acetylcholine, but we can't accurately measure it. We can accurately measure somatostatin," Bishop said.

This will be the first attempt ever made to correlate somatostatin levels with the degree to which the person suffers from dementia.

A clear means of diagnosis will eliminate some of

what Bishop calls the "clinical fuzziness" between Alzheimer's and depression. "Somatostatin should decrease more with Alzheimer's than with depression."

Adding to the unclear clinical distinction between the two is the fact that some 25 percent of all Alzheimer's patients have depression, too. "Treating just the depression alone might give the patient one or more years at home," Bishop said, "and treatment could be greatly improved if we had a means of knowing precisely what we're dealing with."

When indicated, patients will be evaluated by sleep specialists in the UMC sleep disorders laboratory because the pattern of rapid eye movement (REM) in depressed patients is different from the REM pattern of patients with dementia.

"Because of the age shift of our population, we're seeing many more cases of Alzheimer's than before," Bishop said. The disease can affect people as young as 40, but some 20 percent of all people between 80 and 90 years old may have it.

Eighty percent of all Alzheimer's patients are cared for at home, indicating the necessity for strong family support and understanding. The new UMC clinic will provide group counseling for families.

A family physician may refer a patient to the clinic directly at 987-3902.

## **THE PRESIDENT SPEAKING**

*(Continued from page 104)*

You may feel you are not accomplishing much with the first couple of meetings. Be patient. It takes a while for these people to feel comfortable around you. In time I think you will be well rewarded for the efforts you expend in this venture.

## **MSMA's 117th Annual Session — A Complete Meeting**

***Plan Now to Attend!***

- Scientific Sessions
- House of Delegates
- 65 Technical Exhibits
- Scientific Exhibits
- Alumni Reunions

- Specialty Society Meetings
- MSMA/MSMA Auxiliary Banquet  
(featuring Jeanne Robertson, speaker)
- "Boss Moffitt's Speakeasy" (Casino Night)
- Tennis, Golf, Fishing
- Auxiliary Activities





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### Medical Center Announces Faculty Appointments

Three have been named to the School of Medicine faculty at the University of Mississippi Medical Center.

The appointments were announced by Dr. Norman C. Nelson, vice chancellor for health affairs and medical school dean, following approval of the Board of Trustees of Institutions of Higher Learning.

Appointed are Dr. Thomas L. Bennett, assistant professor of pathology; Dr. M. Victoria Gerken, assistant professor of surgery; and Dr. Robert S. Tarver, instructor in surgery.

Dr. Bennett received the B.A. from Drake University in Des Moines, Iowa, in 1974 and earned the M.D. at the University of Iowa College of Medicine in 1978. He completed residencies at the University Hospital in Cleveland and at the University of South Dakota and Veterans Administration Medical Center in Vermillion, South Dakota. He took further forensic training at the office of the Chief Medical Examiner of North Carolina in 1982. He has been an instructor at the University of Iowa College of Medicine in Iowa City, Cuyahoga Community College in Cleveland, and Lakeland Community College in Sheboygan, Wisconsin. He was director of laboratory medicine and pathology at Charter Community Hospital in Des Moines, and Iowa State Medical Examiner since 1983 prior to coming to the Medical Center.

Dr. Gerken earned the B.S. in 1974 at Creighton University and the M.D. in 1978 at the University's School of Medicine. She did her residency at the University of Mississippi Medical Center and was a fellow in surgery at the Medical Center before her faculty appointment.

Dr. Tarver received the B.S. in 1973 from the University of Tennessee, and did postgraduate study at Memphis State University. He earned the M.D. at the University of Mississippi Medical Center in 1978, and completed his residency at the Medical Center in 1984.

### 117th Annual Session

**May 15-19, 1985  
Biloxi, Mississippi**

**Mark Your Calendars Now**

## **Family Practice Update Program Announced**

The 1985 Family Practice Update will be presented April 24-27 at the Sheraton Regency Convention Center in Jackson.

The program will review practice-oriented topics for the primary care physician with a one-day sigmoidoscopy workshop.

Physicians will participate in an extensive lecture series, followed by comprehensive workshop sessions, which will include hearing loss evaluation and aids, hyperlipidemia, fracture management, computer concepts, imaging techniques, fetal monitoring, pediatric infections, Type II diabetes, aging, cryosurgery, antibiotics and health maintenance.

The program, sponsored by the University of Mississippi Medical Center, meets the criteria for credit in Category I of the Physicians Recognition Award of the American Medical Association as follows: Wednesday only, 6.89 hours; Wednesday through

Friday, 22.3 hours; Wednesday through Saturday, 28.4 hours, and Saturday only, six hours. The Sigmoidoscopy Day on Saturday is cosponsored by the Mississippi Division of the American Cancer Society.

The course director is Dr. Richard H. Streiffer, assistant professor of family medicine at the University of Mississippi Medical Center. Coordinators for the program are Dr. Michael R. Foose, assistant professor of family medicine, Dr. Robert C. Forbes, assistant professor of family medicine and Dr. J. Philip Foster, assistant professor of family medicine, all of the Medical Center faculty.

The registration fees are \$150 for April 24-26, and \$40 for April 27, Sigmoidoscopy Day.

For more information or a brochure, contact the University of Mississippi Medical Center, Continuing Health Professional Education, 2500 North State Street, Jackson, Mississippi 39216-4505, or call (601) 987-4914.



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## PERSONALS

WILLIAM E. ANDERSON, III of Greenwood was inducted as a fellow of the American Academy of Orthopaedic Surgeons.

BLAIR E. BATSON of UMC chaired the Government Affairs Committee at the American Academy of Pediatrics meeting in Washington, DC, in February.

EMANUEL G. DEFRAITES, JR., announces the opening of his office for the practice of general psychiatry at 1121 Vancleave Road in Ocean Springs.

GLEN GRAVES of UMC presented an abstract at a meeting in New Orleans of the Southern Society for Pediatric Research.

WALTER JONES of Jackson spoke on "The Continent Urostomy" at a meeting of the Ostomy Association.

GERALD H. HARPER of Laurel announces the opening of his office for the general practice of medicine at 216 South 12th Avenue.

RICHARD G. HENDRICK announces the opening of his office for the practice of internal medicine at 107 Magnolia Doctors Plaza in Corinth.

P. F. HOOPER has associated with the Durfey Clinic in Canton for the practice of general medicine and surgery.

FRANCIS MORRISON of UMC participated in a National Cancer Institute site visit at Indiana University in Indianapolis and also attended a seminar in Atlanta on proposed testing for HTLV-III antibodies.

CHAMPA NAGAPPA of West Point spoke on the subject of child abuse at a meeting of the West Point Rotary Club.

J. ELMER NIX of Jackson has been elected first vice president and president-elect of the American College of Spinal Surgeons.

JUDITH PARKER of Brandon is chief of staff at Rankin General Hospital. Other officers are CURTIS ROBERTS, secretary/treasurer and MARK BROOKS, vice-chief.

OWEN PHILLIPS of Pascagoula was guest lecturer at a class for expectant parents at Singing River Hospital.

JOE ROSS of Vicksburg was chairman of the city's first Heart Forum in February. Speakers were JOHN EVANS, MICHAEL DAVIS, and BARRY HOLCOMB.

JESSIE ROMA TAYLOR of Shannon has been recertified by the American Board of Family Practice.

DAVID THOMAS of Jackson presented a paper at a meeting in New Orleans of the Society for Research and Education in Primary Care Internal Medicine.

HARRY L. TURNER of Waynesboro spoke at a recent meeting of that community's Fortnightly Club.

LAMAR WEEMS of UMC was visiting professor at Medical College of Georgia in Augusta and was lecturer at the annual meeting of the J. Robert Rinker Society. He also attended a meeting in Gainesville of a committee to develop guidelines for lithotripter, and was in Denver in March to attend an executive committee meeting of the National Kidney Foundation as chairman of the Council on Urology.

JAMES P. WOOD of Waynesboro has been recertified by the American Academy of Family Physicians.

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## NEW MEMBERS

BRADFORD, WILLIAM W., Bay St. Louis. Born New Orleans, Sept. 19, 1945; M.D., University of Mississippi School of Medicine, Jackson, 1971; interned Mobile General Hospital, Mobile, AL, one year; emergency medicine residency, Louisville General Hospital, Louisville, KY, 1974-76; elected by Coast Counties Medical Society.

BURKHALTER, JAMES LAMPTON, Jackson. Born Berlin, Germany, Feb. 3, 1954; M.D., University of Mississippi School of Medicine, Jackson, 1979; interned and radiology residency, University Medical Center, Jackson, MS, 1979-83; elected by Central Medical Society.

DAILEY, FRANK HARRISON, Columbus. Born Indianapolis, IN, July 12, 1931; M.D., Indiana University School of Medicine, Indianapolis, 1956; interned Seaside Memorial Hospital, Long Beach, CA, one year; medicine residency, Indiana University School of Medicine, Indianapolis, 1959-62; elected by Prairie Medical Society.

GRAY, RONALD EDWIN, Jackson. Born Meridian, MS, Sept. 4, 1954; M.D., University of Mississippi School of Medicine, Jackson, 1979; interned and diagnostic radiology residency, University Medical Center, Jackson, MS, 1979-83; elected by Central Medical Society.

### Next Month in JOURNAL MSMA

Malpractice Litigation — A Personal Viewpoint

Screening Colorectal Cancer — Invasive Measures

Obstetrics and Gynecology Grand Rounds Clinical Case Management VIII: Evaluation of the Infertile Couple

HARKNESS, MICHAEL JOSEPH, COLUMBIA. Born Upper Darby, PA, May 27, 1955; M.D., University of Pittsburgh School of Medicine, Pittsburgh, PA, 1981; interned and pediatric residency University of Alabama School of Medicine, Birmingham, 1981-84; elected by South Mississippi Medical Society.

HULL, JOSEPH DANIEL, D.O., Long Beach. Born Springfield, MO, June 29, 1948; D.O., Kansas College of Osteopathic Medicine, Kansas City, MO, 1977; interned Green Cross General Hospital, Cuyahoga Falls, OH, one year; elected by Coast Counties Medical Society.

MEEKS, EDWIN DILWORTH, II, Columbus. Born Aberdeen, MS, Oct. 26, 1949; M.D., University of Mississippi School of Medicine, Jackson, 1975; interned Baptist Memorial Hospital, Memphis, TN, one year; otolaryngology residency, Eastern Virginia Graduate School of Medicine, Norfolk, VA, 1979-83; elected by Prairie Medical Society.

NANCE, RANDALL L., D.O., Carthage. Born Philadelphia, MS, Feb. 26, 1950; D.O., University of Health Sciences, College of Osteopathic Medicine, Kansas City, MO, 1983; interned Phelps County Regional Medical Center, Rolla, MO, one year; elected by Central Medical Society.

POWERS, CYNTHIA I., Jackson. Born Jackson, MS, July 18, 1954; M.D., University of Mississippi School of Medicine, Jackson, 1980; diagnostic radiology residency, University Medical Center, Jackson, MS, 1980-84; elected by Central Medical Society.

WARD, EMILY WOFFORD, Jackson. Born Memphis, TN, June 12, 1956; M.D., Jefferson Medical College, Philadelphia, PA, 1981; interned Thomas Jefferson University Hospital, Philadelphia, PA, one year; pathology residency, University Medical Center, Jackson, MS, 1982-84; elected by Central Medical Society.

## DEATHS

CATCHINGS, CHARLES E., JR., Woodville. Born Woodville, MS, Oct. 23, 1898; M.D., Tulane University School of Medicine, New Orleans, 1923; interned Touro Infirmary, New Orleans, one year; postgraduate training, Tulane, New Orleans; died Jan. 10, 1985; age 86.

## **Medico-Legal Brief**

### **Licensure Commission Did Not Violate Physician's Rights**

Disciplining a physician who allegedly endangered the lives of two patients he was treating for obesity did not violate his constitutional rights, a federal trial court in Alabama ruled.

In 1981, a county medical society informed the state Board of Medical Examiners that the physician was improperly and dangerously prescribing certain drugs in treating the patients. The Board investigated his prescribing practices and, afterwards, filed a formal complaint. The Medical Licensure Commission conducted a hearing on the charged violations and found that he had violated a statute prohibiting practicing medicine in such a manner as to endanger the health of patients.

Instead of imposing penalties, the Commission

required him to maintain accurate records of drug dispensing; use thyroid medication only if indicated by clinical testing; complete 30 hours of continuing medical education related to obesity; submit records of patients treated to a physician approved by the Commission for review and report; and provide his patients with a written statement of the side effects of the medication.

The physician then filed suit against the members of the Commission, Board, county society, and two private physicians for violation of his constitutional rights. The trial court said that the statute under which the physician was charged was neither unconstitutionally vague nor overboard. The Commission's decision was supported by the evidence and was reasonable. The physician received fair notice of the charges against him, the court said.

The court granted summary judgment against the physician. — *Rathle v. Grote*, 584 F.Supp. 1128 (D.C., Ala., April 5, 1984)

## **HEALTH CARE AT ITS BEST: AIR FORCE MEDICINE**

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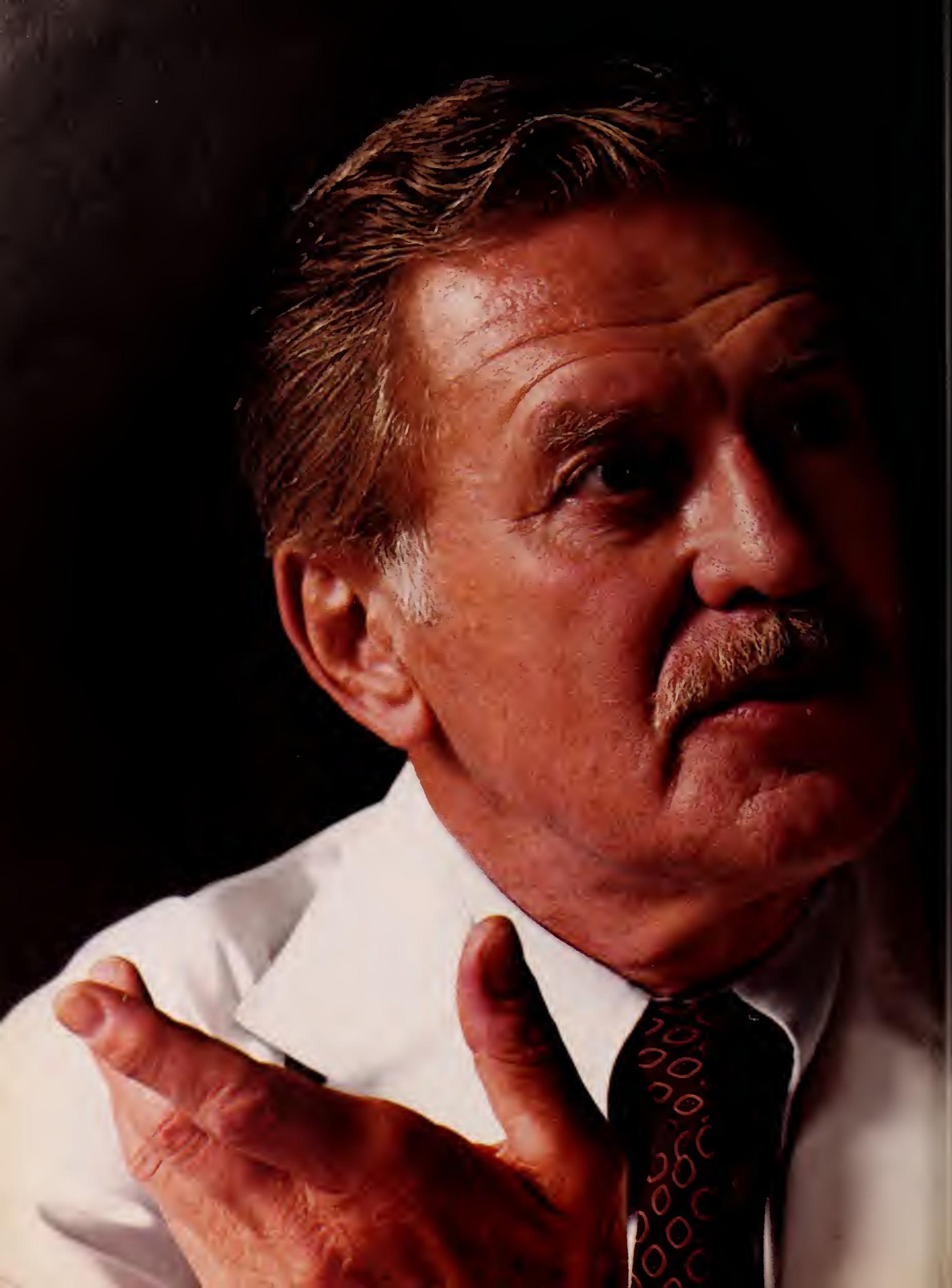
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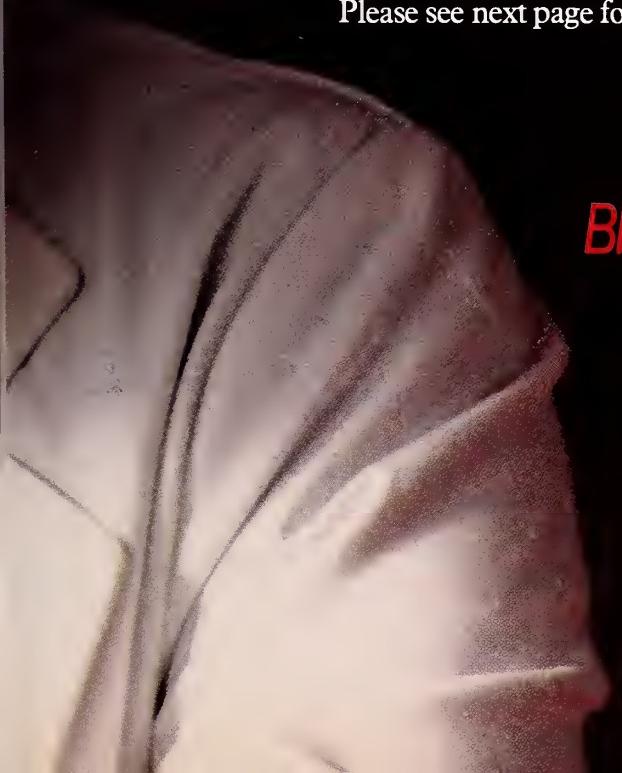
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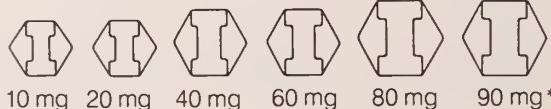
Please see next page for brief summary of prescribing information.

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Tablets**  
**BRAND OF PROPRANOLOL HCl**  
***Small price to pay.***

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# **INDERAL® Tablets**

## **BRAND OF PROPRANOLOL HCl**



10 mg 20 mg 40 mg 60 mg 80 mg 90 mg\*

BRIEF SUMMARY (FOR FULL PRESCRIBING INFORMATION, SEE PACKAGE CIRCULAR.)

### **INDERAL® (propranolol hydrochloride) Tablets**

#### **CONTRAINDICATIONS**

INDERAL is contraindicated in 1) cardiogenic shock, 2) sinus bradycardia and greater than first degree block, 3) bronchial asthma, 4) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythmia treatable with Inderal.

#### **WARNINGS**

**CARDIAC FAILURE.** Sympathetic stimulation may be a vital component supporting circulatory function in patients with congestive heart failure, and its inhibition by beta blockade may precipitate more severe failure. Although beta blockers should be avoided in overt congestive heart failure, if necessary they can be used with close follow-up in patients with a history of failure who are well compensated and are receiving digitalis and diuretics. Beta-adrenergic blocking agents do not abolish the inotropic action of digitalis on heart muscle.

**IN PATIENTS WITHOUT A HISTORY OF HEART FAILURE.** continued use of beta blockers can, in some cases, lead to cardiac failure. Therefore, at the first sign or symptom of heart failure, the patient should be digitalized and/or treated with diuretics, and the response observed closely or Inderal should be discontinued (gradually, if possible).

**IN PATIENTS WITH ANGINA PECTORIS,** there have been reports of exacerbation of angina and, in some cases, myocardial infarction, following abrupt discontinuance of Inderal therapy. Therefore, when discontinuance of Inderal is planned the dosage should be gradually reduced over at least a few weeks and the patient should be cautioned against interruption or cessation of therapy without the physician's advice. If Inderal therapy is interrupted and exacerbation of angina occurs, it usually is advisable to reinstitute Inderal therapy and take other measures appropriate for the management of unstable angina pectoris. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease who are given propranolol for other indications.

**NONALLERGIC BRONCHOSPASM (e.g., CHRONIC BRONCHITIS, EMPHYSEMA)** — PATIENTS WITH BRONCHOSPASTIC DISEASES SHOULD IN GENERAL NOT RECEIVE BETA BLOCKERS. Inderal should be administered with caution since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of beta receptors.

**MAJOR SURGERY** The necessity or desirability of withdrawal of beta-blocking therapy prior to major surgery is controversial. It should be noted, however, that the impaired ability of the heart to respond to reflex adrenergic stimuli may augment the risks of general anesthesia and surgical procedures.

Inderal, like other beta blockers, is a competitive inhibitor of beta-receptor agonists and its effects can be reversed by administration of such agents, e.g. dobutamine or isoproterenol. However such patients may be subject to protracted severe hypotension. Difficulty in starting and maintaining the heartbeat has also been reported with beta blockers.

**DIABETES AND HYPOGLYCEMIA** Beta-adrenergic blockade may prevent the appearance of certain premonitory signs and symptoms (pulse rate and pressure changes) of acute hypoglycemia in labile insulin-dependent diabetes. In these patients, it may be more difficult to adjust the dosage of insulin.

**THYROTOXICOSIS** Beta blockade may mask certain clinical signs of hyperthyroidism. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism including thyroid storm. Propranolol does not distort thyroid function tests.

**IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME**, several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case this resulted after an initial dose of 5 mg propranolol.

#### **PRECAUTIONS**

General Propranolol should be used with caution in patients with impaired hepatic or renal function. Inderal is not indicated for the treatment of hypertensive emergencies.

Beta-adrenoceptor blockade can cause reduction of intraocular pressure. Patients should be told that Inderal (propranolol hydrochloride) may interfere with the glaucoma screening test. Withdrawal may lead to a return of increased intraocular pressure.

**Clinical Laboratory Tests.** Elevated blood urea levels in patients with severe heart disease elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase.

**DRUG INTERACTIONS.** Patients receiving catecholamine-depleting drugs such as reserpine should be closely observed if Inderal is administered. The added catecholamine-blocking action may produce an excessive reduction of resting sympathetic nervous activity which may result in hypotension, marked bradycardia, vertigo, syncopal attacks, or orthostatic hypotension.

**Carcinogenesis, Mutagenesis, Impairment of Fertility.** Long-term studies in animals have been conducted to evaluate toxic effects and carcinogenic potential. In 18-month studies in both rats and mice, employing doses up to 150 mg/kg/day, there was no evidence of significant drug-induced toxicity. There were no drug-related tumorigenic effects at any of the dosage levels. Reproductive studies in animals did not show any impairment of fertility that was attributable to the drug.

**Pregnancy.** Pregnancy Category C. Inderal has been shown to be embryotoxic in animal studies at doses about 10 times greater than the maximum recommended human dose.

There are no adequate and well-controlled studies in pregnant women. Inderal should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

**Nursing Mothers.** Inderal is excreted in human milk. Caution should be exercised when Inderal is administered to a nursing woman.

**Pediatric Use.** Safety and effectiveness in children have not been established.

#### **ADVERSE REACTIONS**

Most adverse effects have been mild and transient and have rarely required the withdrawal of therapy.

**Cardiovascular** bradycardia, congestive heart failure, intensification of AV block, hypotension, paresthesia of hands, thrombocytopenic purpura, arterial insufficiency, usually of the Raynaud type.

**Central Nervous System** Lightheadedness, mental depression manifested by insomnia, lassitude, weakness, fatigue; reversible mental depression progressing to catatonia, visual disturbances, hallucinations, an acute reversible syndrome characterized by disorientation for time and place, short-term memory loss, emotional lability, slightly clouded sensorium and decreased performance on neuropsychometrics.

**Gastrointestinal** nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic colitis.

**Allergic** pharyngitis and agranulocytosis, erythematous rash, fever combined with aching and sore throat, laryngospasm and respiratory distress.

**Respiratory** bronchospasm.

**Hematologic** agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura.

**Auto-Immune:** In extremely rare instances, systemic lupus erythematosus has been reported.

**Miscellaneous** alopecia, LE-like reactions, psoriasisform rashes, dry eyes, male impotence, and Peyronie's disease have been reported rarely. Oculomucocutaneous reactions involving the skin, serous membranes and conjunctivae reported for a beta blocker (practolol) have not been associated with propranolol.

\*The appearance of Inderal tablets is a registered trademark of Ayerst Laboratories.

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**9429/185**

**Ayerst** AYERST LABORATORIES  
New York, N.Y. 10017

## PLACEMENT SERVICE

### Physicians Wanted

**CONSULTING PHYSICIANS.** Board eligible orthopedic and psychiatric consultants needed 25-30 hours per week for evaluation of Social Security disability claims. Positions available immediately. For additional information, please call Deborah Warriner, Medical Staff Coordinator, Disability Determination Services, (601) 923-2153.

**PSYCHIATRIST —** Gulfport. New 60-bed private adolescent psychiatric and substance abuse hospital seeking psychiatrist to establish practice in Gulf Coast community with population area over 100,000. Excellent practice and recreational opportunities. Send C.V. to Chuck LeCluyse, Administrator, CPC Sand Hill Hospital, 12222 Highway 49 N., Gulfport, MS 39503.

**NEEDED IMMEDIATELY.** Board certified Ob-Gyn. For further details, contact Executive Director, Grenada County Hospital 960 Avent Drive, Grenada, MS 38901; (601) 226-8111.

**CENTRAL LOUISIANA.** Opportunity to associate with established private psychiatric practice. Free-standing 46 bed, private psychiatric hospital under construction. Need for psychiatrists acute, at this time. Further information available by sending Vitae and letter of interest to: Psychiatry, P.O. Box 12492, Alexandria, LA 71315-2492.

**UROLOGIST, OB-GYN, OPHTHALMOLOGIST, ORTHOPEDIC** surgery (board eligible/certified). Excellent opportunities exist in a growing northeast Miss. community with a draw population of 42,000+. Modern, 125-bed hospital currently expanding to 157 beds. Excellent schools, churches, recreational/outdoor areas. Contact Administrator, UCGH, Highway 30 West, New Albany, MS 38652; (601) 534-7631.

# A WORD TO THE WHYS

### WHY AMA?

The AMA has actively sought to attract women as members and leaders in organized medicine. Ongoing AMA projects and concentrated efforts by county, state, and specialty societies have significantly increased the leadership role and membership of women in organized medicine. Strengthening the voice of women in medicine through encouraging active participation: it's one more good reason why you should be a part of the AMA.

To Join, Contact your county or state medical society or write: Division of Membership, AMA, 535 North Dearborn Street, Chicago, Illinois 60610 or call collect, (312) 751-6196.



**MISSISSIPPI** — Immediate opening for board certified/prepared Director of ED with 18,000 visits and heavy trauma. This 250-bed community hospital has a brand new 11,000 foot E. D. Minimum hourly, approximately \$47.00 with anticipated increase with new department. Fee-for-service, directors stipend, CME, malpractice, and individualized scheduling. Contact Niki Balgny, the Fischer Mangold Group, P.O. Box 788, Pleasonton, CA 800-227-2092.

**MISSISSIPPI AND LOUISIANA** — Emergency Medicine. Full and part time positions available in emergency departments and clinics for qualified physicians seeking lucrative employment opportunities. Outstanding remuneration and comprehensive malpractice insurance provided. For further information contact Maura Hughes, Staffing Specialist (1-800-645-4848) or send CV to National Emergency Services, Inc., One Hollow Lane, Suite 304, Lake Success, NY 11042.

**DALLAS/FORT WORTH** needs physicians. Full-time physician positions for general practice/internal medicine clinics. Partnership available in one year.

**FAMILY PRACTITIONERS & INTERNISTS** needed in West Central Alabama. OPPORTUNITIES FOR PHYSICIANS TO RECEIVE HELP WITH ESTABLISHING THEIR PRACTICE AND THEN OWN IT. Some practice locations very near Birmingham. Faculty appointment with Family Practice Center at University of Alabama in Tuscaloosa may be available for those qualified. *Options available of joining established practices or of working individually.* Salary \$50,000 to \$65,000 guaranteed until practice is self-sufficient. Generous fringe benefits include life, disability, health, retirement and malpractice insurance; two weeks continuing education; and three weeks annual leave. All equipment including X-Ray and lab, furniture, and supplies provided. ALL CLINIC EXPENSES COVERED. Management services including personnel, payroll, tax reports, and billing provided. If invited to visit, all expenses will be paid. All moving expenses covered. Please send C.V. to Frank Cochran, Health Development Corporation, P.O. Box 1486, Tuscaloosa, Alabama 35403, or call COLLECT (205) 758-7545 for more information.

Excellent opportunity. Write or call S. K. Kechejian, M.D., 609 S. Main St., Duncanville, TX 75116; (214) 780-0093.

**MISSISSIPPI, POSITIONS AVAILABLE.** Immediate/full-time positions available with well-established, growing emergency medical group staffing hospital emergency departments on a 24 hour basis and clinics providing continual medical care in Central and South Mississippi. Prefer residency-trained or experienced physicians with specialties in any of the following areas: emergency, family practice, internal, and industrial or occupational medicine interested in a career commitment. Attractive salary and benefit package. Career advancement. MEA, P.A. is a physician owned and managed medical group committed to the financial security and personal development of each physician member. For information contact: James L. Heflin, Ph.D., 1755 Lelia Drive, Suite 100, Jackson, MS. 39216-4883 or call (601) 366-6503.

**OFFERING EARLY PARTNERSHIP** to board certified or board eligible anesthesiologist, recently trained, at Meridian Regional Hospital, to work with anesthesiologist presently with CRNAs. No OB or heart. Position open April 1st. Contact Dr. John Caron, Meridian Regional Hospital, Highway 39 N., Meridian, MS 39303; (601) 483-6211.

**WANTED: EXPERIENCED EMERGENCY DEPARTMENT** physician. BCLS/ACLS certified, prefer ATLS certification. Largest department volume in largest hospital in state. Fee for service. Malpractice paid. Send resumé to: Alan P. Brown, M.D., FACEP, Medical Director, Emergency Services Department, North Mississippi Medical Center, 830 South Gloster, Tupelo, MS 38801.

**ESTABLISHED PEDIATRIC PRACTICE** for sale. Six figure gross income; community in Mississippi Delta; 25,000 population; good mixture of patients. Reply to Box P, c/o JOURNAL MSMA, P.O. Box 5229, Jackson, MS 39216.

#### **Physicians Available**

**ANESTHESIOLOGIST.** B.C. university-trained; 20 years experience; proficient in all types of anesthesia; excellent credentials; Reply 4110-A, Chico Road, Pascagoula, MS 39567.

**FAMILY PRACTICE.** 1981 UMC graduate, residency trained, board certified; interested in partnership or group experience, primarily in Mississippi. Reply to: 1822 Laurel Street, Jackson, MS 39202 (601) 352-6629.

## PHYSICIANS NEEDED

Mississippi Disability Determination Services has need of physicians to serve as consultants to medical examiners. This is a part-time position. The basic requirements are: 1) an unencumbered license to practice medicine in Mississippi and 2) facility in the English language. Those interested should call Deborah Warriner, Medical Staff Coordinator. WATS-1-800-962-2230, Extension 2153; Jackson, 922-6811, Ext. 2153.

Physicians (especially specialists such as ophthalmologists, pediatricians, orthopedists, neurologists, etc.) interested in performing consultative evaluations (according to Social Security guidelines) should contact one of the following Medical Relations Officers: Henry Klar (Ext. 2276) or Martina Mayfield (Ext. 2227).

The DDS now has a program available for medical society meetings and hospital staff meetings. The purpose of this program is to explain how the disability determination process works, its historical background, its basis in legality and its documentation requirements. Any group interested in this presentation should contact John S. Barr, M.D., Ext. 2277.

## CLASSIFIED

1985 CME CRUISE/CONFERENCES on selected medical topics — Caribbean, Mexican, Hawaiian, Alaskan, Mediterranean. 7-14 days year-round. Approved for 20-24 CME Cat. 1 credits (AMA/PRA) & AAFP prescribed credit. Distinguished professors. *Fly roundtrip free on Caribbean, Mexican, & Alaskan cruises.* Excellent group fares on finest ships. Registration limited. Pre-scheduled in compliance with present IRS requirements. Information: International Conferences, 189 Lodge Ave., Huntington Station, NY 11746. (516) 549-0869.

COMPUTER with working software package; 3 terminals, expandable to several more; suitable for medium to large practice. Package generates insurance claims, trial balance, statements, CPT code, etc. \$29,000. For details, write Box C, MSMA, P.O. Box 5229, Jackson, MS 39216.

FOR SALE. Upright Bovine unit. For information contact, Mrs. James Grant Thompson, 4318 Council Circle, Jackson, MS 39206; (601) 366-5434.

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## MEETINGS

### National and Regional

American Medical Association, Annual Meeting, June 16-20, 1985, Chicago. James H. Sammons, Executive Vice President, 535 N. Dearborn St., Chicago, IL 60610.

### State and Local

Mississippi State Medical Association, 117th Annual Session, May 15-19, 1985, Biloxi. Charles L. Mathews, Executive Secy., 735 Riverside Drive, P.O. Box 5229, Jackson 39216.

Mississippi Academy of Family Physicians, Annual Meeting, June 26-29, 1985, Biloxi. Mrs. Alyce Palmore, Executive Secy., P.O. Box 12330, Jackson 39211.

*Amite-Wilkinson Counties Medical Society*, 3rd Monday, March, June, September, December. James S. Poole, Secy., The Gloster Clinic, Gloster 39638. Counties: Amite, Wilkinson.

*Central Medical Society*, 1st Tuesday, February, April, October, December, 6:30 p.m., Primos Northgate Restaurant, Jackson. Patsy Douglas, Executive Secy., B6 Medical Arts Bldg., 1151 N. State St., Jackson 39201. Counties: Hinds, Leake, Madison, Rankin, Scott, Simpson.

*Claiborne County Medical Society*, 1st Tuesday, each month, 6:00 p.m., Claiborne County Hospital, Port Gibson. D. M. Segrest, Secy., P.O. Box 147, Port Gibson 39150. County: Claiborne.

*Clarksdale and Six Counties Medical Society*, 3rd Wednesday, April, and 1st Wednesday, November, 2:00 p.m., Clarksdale. Rodney Baine, Secy., 110 Yazoo Ave., Clarksdale 38614. Counties: Coahoma, Quitman, Tallahatchie, Tunica.

*Coast Counties Medical Society*, January, May, and November. H. S. Barrett, Secy., P.O. Box 1810, Gulfport 39501. Counties: Hancock, Harrison, Stone.

*Delta Medical Society*, 2nd Wednesday, April and October. Walter H. Rose, Secy., 122 E. Baker St., Indianola 38751. Counties: Bolivar, Humphreys, Leflore, Sunflower, Washington.

*DeSoto County Medical Society*, 3rd Thursday, February and August, 1:00 p.m., Kenny's Restaurant, Hernando. Malcolm D. Baxter, Jr., Secy., Baxter Clinic, Hernando 38632. County: DeSoto.

*East Mississippi Medical Society*, 1st Tuesday, February, April, June, October, December. Charles L. Wilkinson, Secy., Mail: Ms. Jenkins, P.O. Box 4053, Meridian 39305. Counties: Clarke, Kemper, Lauderdale, Neshoba, Newton, Winston.

*Homochitto Valley Medical Society*, Meetings scheduled quarterly. Fred G. Emrich, Secy., P.O. Box 1488, Natchez 39120. Counties: Adams, Jefferson.

*North Central District Medical Society*, 3rd Wednesday, March, June, September, January. Charles S. Watras, 612 Summit St., Winona 38967. Counties: Attala, Carroll, Chickasaw, Grenada, Holmes, Montgomery, Webster.

*Northeast Mississippi Medical Society*, 1st Thursday, March, June, September, December. Roger L. Lowery, Secy., 618 Pegram Dr., Tupelo 38801. Counties: Alcorn, Calhoun, Chickasaw, Itawamba, Lee, Monroe, Pontotoc, Prentiss, Tishomingo, Union.

*North Mississippi Medical Society*, 1st Thursday, April, September, December. Cherie Friedman, Secy., 424 South 5th, Oxford 38655. Counties: Benton, Lafayette, Marshall, Panola, Tate, Tippah, Yalobusha.

*Pearl River County Medical Society*, 2nd Monday, March, June, September, December. J. C. Griffing, Secy., Crosby Memorial Hospital, Picayune 39466. County: Pearl River.

*Prairie Medical Society*, 2nd Tuesday, March, June, September, December. Steve Parvin, Secy., 106 Strange Rd., Starkville 39759. Counties: Clay, Oktibbeha, Lowndes, Noxubee.

*Singing River Medical Society*, 3rd Monday, January, March, June, September, December. S. B. Fineberg, Secy., 2204 Old Mobile Hwy., Pascagoula 39567. County: Jackson.

*South Central Mississippi Medical Society*, 2nd Tuesday, March, June, September, December. Julian T. Janes, Secy., 304 Clark, McComb 39648. Counties: Copiah, Franklin, Lawrence, Lincoln, Pike, Walthall.

*South Mississippi Medical Society*, 2nd Thursday, March, June, September, December. Dan Jones, Secy., P.O. Box 2756, Laurel 39440. Counties: Covington, Forrest, George, Greene, Jasper, Jefferson Davis, Jones, Lamar, Marion, Perry, Smith, Wayne.

*West Mississippi Medical Society*, 2nd Tuesday, January, March, May, September, October, November, 6:30 p.m., Maxwell's Restaurant, Vicksburg. Martin E. Hinman, Secy., The Street Clinic, Vicksburg 39180. Counties: Issaquena, Sharkey, Warren.

### Mississippi Institutions and Organizations Accredited for Continuing Medical Education

The following Mississippi institutions and medical organizations have been accredited in accordance with the "Essentials for Accreditation of Institutions and Organizations Offering Continuing Medical Education Programs" of the Liaison Committee on Continuing Medical Education. Information concerning CME programs for physicians offered by these accredited sources may be obtained by writing the Director, Continuing Medical Education, at the individual institution or organization.

Council on Scientific Assembly  
Mississippi State Medical Association  
735 Riverside Drive  
Jackson, MS 39216

Mississippi Chapter  
American College of Surgeons  
Box 5229  
Jackson, MS 39216

North Mississippi Medical Center  
830 Gloster Avenue  
Tupelo, MS 38801

North Panola County Hospital  
Drawer 160  
Sardis, MS 38666

Forrest General Hospital  
Box 1897  
Hattiesburg, MS 39401

Singing River Hospital  
2809 Denny Avenue  
Pascagoula, MS 39567

Mississippi Baptist Hospital  
1225 N. State Street  
Jackson, MS 39201

Magnolia Hospital  
Alcorn Drive  
Corinth, MS 38834

Gulf Coast Community Hospital  
4642 W. Beach Boulevard  
Biloxi, MS 39531

Greenwood Leflore Hospital  
1508 Leflore Avenue  
Greenwood, MS 38930

Jefferson Davis Memorial Hospital  
Box 1488  
Natchez, MS 39120

Gulfport Memorial Hospital  
4500 13th Street  
Gulfport, MS 39501

King's Daughter Hospital  
Box 948  
Brookhaven, MS 39061

Oxford-Lafayette County Hospital  
P.O. Box 946  
Oxford, MS 38655

Riverside Hospital  
Lakeland Drive  
Jackson, MS 39208

St. Dominic-Jackson Memorial Hospital  
969 Lakeland Dr.  
Jackson, MS 39216

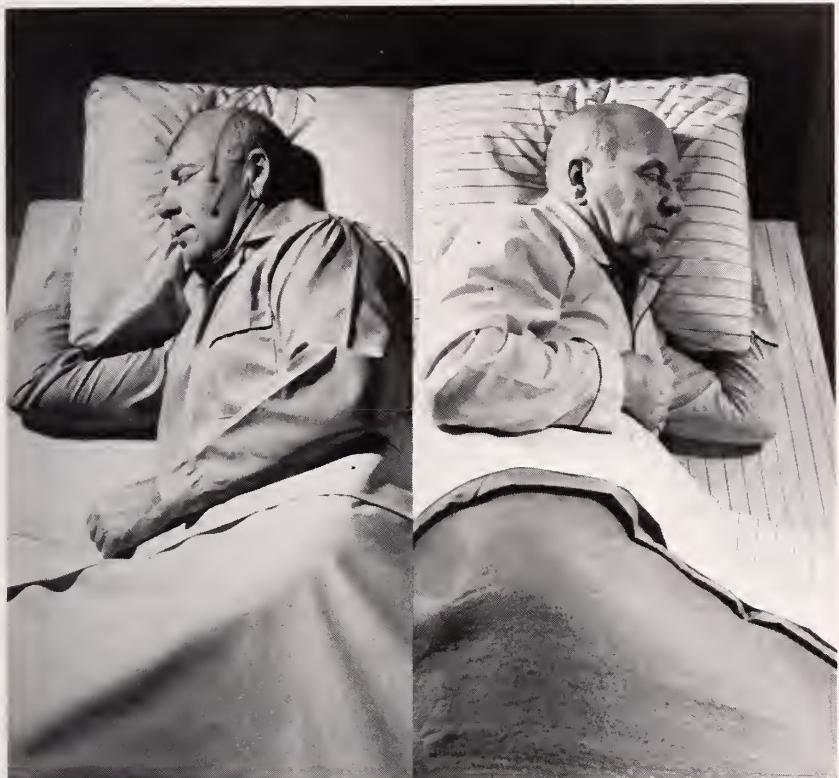
Biloxi Regional Medical Center  
1559 Lafayette St.  
Biloxi, MS 39533

Mississippi Radiological Society  
316 Medical Arts Building  
Jackson, MS 39201

Jeff Anderson Regional Medical Center  
2124 14th St.  
Meridian, MS 39301

Northwest Mississippi Regional Medical Center  
Box 1218  
Clarksdale, MS 38614

# COMPLETE LABORATORY DOCUMENTATION<sup>1-5</sup> ... EXTENSIVE CLINICAL PROOF



FOR THE PREDICTABILITY  
CONFIRMED BY EXPERIENCE

## DALMANE® flurazepam HCl/Roche

THE COMPLETE HYPNOTIC  
PROVIDES ALL THESE BENEFITS:

- Rapid sleep onset<sup>1-6</sup>
- More total sleep time<sup>1-6</sup>
- Undiminished efficacy for at least 28 consecutive nights<sup>2-4</sup>
- Patients usually awake rested and refreshed<sup>7-9</sup>
- Avoids causing early awakenings or rebound insomnia after discontinuation of therapy<sup>2,5,10-12</sup>

Caution patients about driving, operating hazardous machinery or drinking alcohol during therapy. Limit dose to 15 mg in elderly or debilitated patients. Contraindicated during pregnancy.

## DALMANE® flurazepam HCl/Roche

**References:** 1. Kales J et al: *Clin Pharmacol Ther* 12:691-697, Jul-Aug 1971. 2. Kales A et al: *Clin Pharmacol Ther* 18:356-363, Sep 1975. 3. Kales A et al: *Clin Pharmacol Ther* 19:576-583, May 1976. 4. Kales A et al: *Clin Pharmacol Ther* 32:781-788, Dec 1982. 5. Frost JD Jr, DeLucchi MR: *J Am Geriatr Soc* 27:541-546, Dec 1979. 6. Kales A, Kales JD: *J Clin Pharmacol* 3:140-150, Apr 1983. 7. Greenblatt DJ, Allen MD, Shader RI: *Clin Pharmacol Ther* 21:355-361, Mar 1977. 8. Zimmerman AM: *Curr Ther Res* 13:18-22, Jan 1971. 9. Amrein R et al: *Drugs Exp Clin Res* 9(1):85-99, 1983. 10. Monti JM: *Methods Find Exp Clin Pharmacol* 3:303-326, May 1981. 11. Greenblatt DJ et al: *Sleep* 5(Suppl 1) S18-S27, 1982. 12. Kales A et al: *Pharmacology* 26:121-137, 1983.

### DALMANE® flurazepam HCl/Roche

Before prescribing, please consult complete product information, a summary of which follows:

**Indications:** Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening, in patients with recurring insomnia or poor sleeping habits, in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

**Contraindications:** Known hypersensitivity to flurazepam HCl, pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patient to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

**Warnings:** Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

**Precautions:** In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

**Adverse Reactions:** Dizziness, drowsiness, light-headedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase, and paradoxical reactions, e.g., excitement, stimulation and hyperactivity.

**Dosage:** Individualize for maximum beneficial effect. Adults: 30 mg usual dosage; 15 mg may suffice in some patients. **Elderly or debilitated patients:** 15 mg recommended initially until response is determined.

**Supplements:** Capsules containing 15 mg or 30 mg flurazepam HCl



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May 1985, Volume XXVI, Number 5

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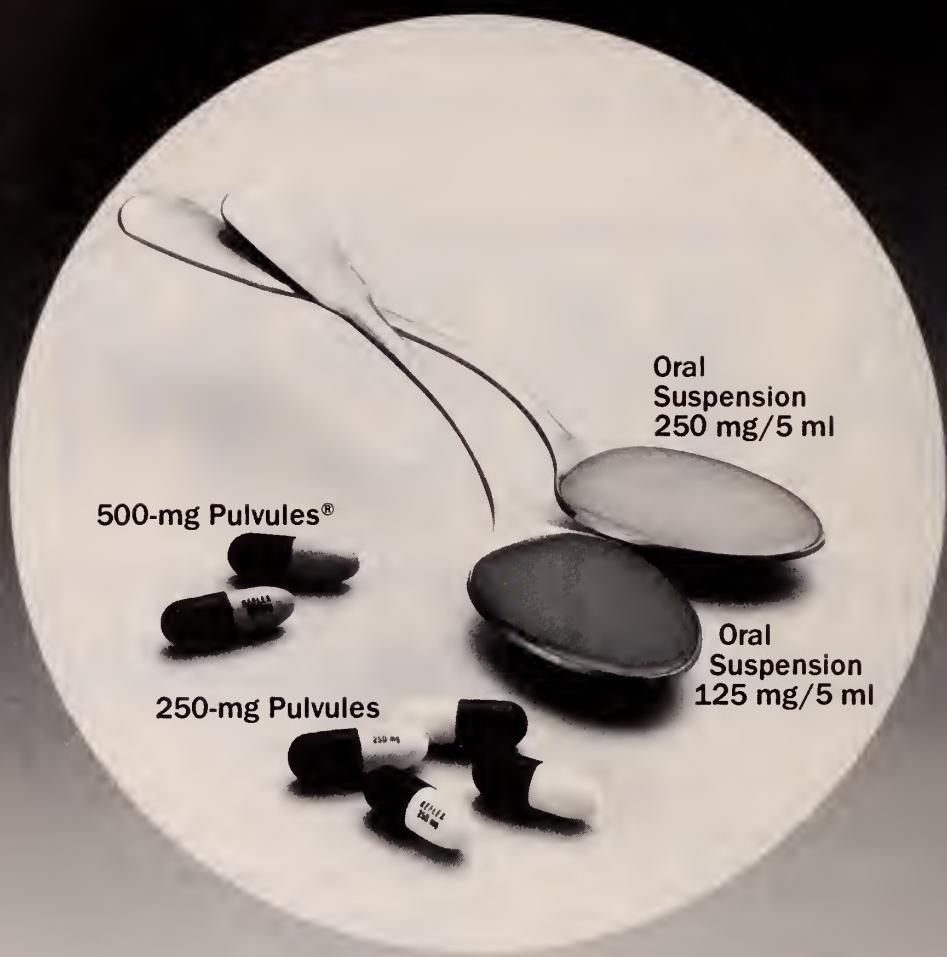
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# NEWSLETTER

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May 1985

Dear Doctor:

For the first time, the total MD population in the United States has passed the half-million mark. The new edition of Physician Characteristics and Distribution in the U.S., an AMA publication, reports that there were 501,958 physicians for 1982, the latest year for which complete information is available.

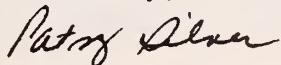
There were 470 people for every physician that year, compared to a ratio of 701 to one in 1960. More than half (53.5%) of the MDs were 44 years of age and younger. The proportion of female physicians to the total MD population doubled between 1963 and 1982, from 6.3% to 12.8%.

Public attitudes about why physicians enter the practice of medicine should be the focus of future efforts to enhance the public image of the profession. That is the conclusion of the AMA Group on Federation and Public Relations after a recent public opinion survey. The 28% minority who said that physicians are motivated by a desire to help people were more likely to have a positive image of physicians. The survey, conducted in cooperation with the American College of Emergency Physicians, found that a majority of Americans believe that physicians do not spend enough time with patients (61%) and do not care about patients as much as they used to (54%).

As part of a continuing effort to eliminate licensing abuse, the AMA will begin informing state licensing boards of the deaths of physicians. The AMA plans to make use of biographical data that it collects to prevent opportunities for imposters to fraudulently obtain licenses. This latest action expands the AMA's effort to prevent credentialing abuses, which already includes notifying state licensing boards of actions taken against physicians in other states.

Physicians are urged to return the questionnaire for the Physicians' Professional Activities Census, which began early last month. The AMA conducts the census every four years to update and expand information in the computerized Physician Masterfile.

Sincerely,



Patsy Silver  
Managing Editor

## Counsel to Authors

THE JOURNAL welcomes manuscripts which should be submitted to the Editors at 735 Riverside Drive, Jackson, MS 39216, in original and at least one duplicate copy. They must be typewritten double spaced on 8½ by 11-inch white paper. **Brief manuscripts (about 2,500 words or 8 pages) will be given preference over longer articles.**

The author is responsible for all statements made in his work, including changes made by the manuscript editor. Manuscripts are received with the understanding that they are not under simultaneous consideration by any other publication and have not been previously published. All manuscripts will be acknowledged, and while those rejected are generally returned to the author, the JOURNAL is not responsible in event of loss. Manuscripts accepted for publication become the property of the JOURNAL and are copyrighted by the association when published. They may not be published elsewhere without written release and permission from both the JOURNAL and the author.

All copy must be double spaced, including legends, footnotes, and references. Generous margins at the top, bottom, and on both sides of the page should be allowed. Each page after the title page should be consecutively numbered and carry a running head identifying the paper and author.

Titles should be short, specific, and clear. Ordinarily, a title should not exceed 80 characters, including punctuation.

**References should be limited to a maximum of 10. If there are more than 10, the references will be omitted and a notation made to write the author for a complete list.** Textbooks, personal communications, and unpublished data may not be cited as references. References must include names of authors, complete title cited, name of journal or book spelled out or abbreviated according to the *Index Medicus*, volume number, first and last page numbers, month, date (if published more frequently than monthly), and year. References should be arranged according to order listed in the text and must be numbered consecutively.

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**In addition, in view of The Copyright Revision Act of 1976, effective Jan. 1, 1978, transmittal letters to the editor should contain the following language:** "In consideration of the Mississippi State Medical Association's taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns, or otherwise conveys all copyright ownership to the MSMA in the event that such work is published by the MSMA." We regret that transmittal letters not containing the foregoing language signed by *all* authors of the submission will necessitate delay in review of the manuscript. — *The Editors.*

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*Howard Ruff's Financial Survival Report, September 26, 1983:* "The... strategy... is one of the best.... It's called EMPLOYEE LEASING. If you are a small company employee, take this article to your employer. It could make you a real hero."

*Newsweek, May 14, 1984:* "...Some enterprising businesses are experimenting with... leasing workers. An owner simply dismisses his workers, then hires them back from an employee-leasing firm. He retains the right to hire and fire, but... is freed of costly paperwork and rewarded with some attractive tax breaks."

*Dallas Times Herald, May 26, 1984:* "Lumberyard owner Tony James fired all of his employees... He is one of a growing number of bosses who are dismissing their staffs and hiring them back from employee-leasing firms.... By getting rid of their employees, the client companies eliminate all their payroll paper work and often can obtain better employee benefits for less money."

*Memphis Daily News, October 1, 1984:* "Imagine a firm offering to increase your company profits up to 15 per cent, raise employee loyalty... and give you more time and manpower... This revolution is taking place now... and is called People Lease Inc."

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# DATELINE

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**DRGs Create  
Patient Concerns**

Washington, DC - A Government Accounting Office (GAO) report indicates that patients are being discharged from hospitals after shorter lengths of stay and in poorer states of health than prior to DRGs. The GAO also learned, after visiting six states, that demand for post-hospital care is increasing under DRGs but there are shortages of nursing home beds for Medicare patients and limited coverage for home and community health services.

---

**DRG Monitoring  
Project Continues**

Chicago, IL - In the first five months of the DRG Monitoring Project, the AMA has received responses representing approximately 6,500 physicians. The monitoring project will continue throughout the three-year phase-in of the prospective pricing system. Physicians may describe their experiences in a brief letter addressed to the DRG Monitoring Project, Dept. of Health Care Resources, P.O. Box 10947, Chicago, IL 60610.

---

**AMA Establishes PRO  
Monitoring Project**

Chicago, IL - The AMA has established a program similar to the DRG Monitoring Project for the purpose of assessing individual physicians' and hospitals' experiences, positive and negative, which they feel may be attributable to the new PRO system. Physicians and hospitals are invited to share information in a brief letter addressed to PRO Monitoring Project, AMA, 535 N. Dearborn, Chicago, IL 60610.

---

**Malpractice Claims  
Increase Dramatically**

Chicago, IL - Physicians' risk of having a medical malpractice claim filed against them has increased dramatically since 1980, when physicians experienced claims at an average annual rate of 3 per 100 physicians. From 1980 to 1984, an average of 8.6 of every 100 physicians had a claim filed against them. A recent survey found that 42% of physicians had increased the amount of defensive medicine they practiced the previous year.

---

**Professional Liability  
Teleconference Set**

Jackson, MS - MSMA will participate in a three-hour national teleconference on "Professional Liability Insurance" beginning at noon on June 3 in Jackson. The conference, produced through collaboration of the AMA and Hospital Satellite Network, will feature a panel of experts in law, insurance and medicine who will discuss professional liability and will answer phoned-in questions from participants across the country.

---

## MEETINGS

### National and Regional

American Medical Association, Annual Meeting, June 16-20, 1985, Chicago. James H. Sammons, Executive Vice President, 535 N. Dearborn St., Chicago, IL 60610.

### State and Local

Mississippi State Medical Association, 117th Annual Session, May 15-19, 1985, Biloxi. Charles L. Mathews, Executive Secy., 735 Riverside Drive, P.O. Box 5229, Jackson 39216. Mississippi Academy of Family Physicians, Annual Meeting, June 26-29, 1985, Biloxi. Mrs. Alyce Palmore, Executive Secy., P.O. Box 12330, Jackson 39211.

*Amite-Wilkinson Counties Medical Society*, 3rd Monday, March, June, September, December. James S. Poole, Secy., The Gloster Clinic, Gloster 39638. Counties: Amite, Wilkinson.

*Central Medical Society*, 1st Tuesday, February, April, October, December, 6:30 p.m., Primos Northgate Restaurant, Jackson. Patsy Douglas, Executive Secy., B6 Medical Arts Bldg., 1151 N. State St., Jackson 39201. Counties: Hinds, Leake, Madison, Rankin, Scott, Simpson.

*Claiborne County Medical Society*, 1st Tuesday, each month, 6:00 p.m., Claiborne County Hospital, Port Gibson. D. M. Segrest, Secy., P.O. Box 147, Port Gibson 39150. County: Claiborne.

*Clarksdale and Six Counties Medical Society*, 3rd Wednesday, April, and 1st Wednesday, November, 2:00 p.m., Clarksdale. Rodney Baine, Secy., 110 Yazoo Ave., Clarksdale 38614. Counties: Coahoma, Quitman, Tallahatchie, Tunica.

*Coast Counties Medical Society*, January, May, and November. H. S. Barrett, Secy., P.O. Box 1810, Gulfport 39501. Counties: Hancock, Harrison, Stone.

*Delta Medical Society*, 2nd Wednesday, April and October. Walter H. Rose, Secy., 122 E. Baker St., Indianola 38751. Counties: Bolivar, Humphreys, Leflore, Sunflower, Washington.

*DeSoto County Medical Society*, 3rd Thursday, February and August, 1:00 p.m., Kenny's Restaurant, Hernando. Malcolm D. Baxter, Jr., Secy., Baxter Clinic, Hernando 38632. County: DeSoto.

*East Mississippi Medical Society*, 1st Tuesday, February, April, June, October, December. Charles L. Wilkinson, Secy., Mail: Ms. Jenkins, P.O. Box 4053, Meridian 39305. Counties: Clarke, Kemper, Lauderdale, Neshoba, Newton, Winston.

*Homochitto Valley Medical Society*, Meetings scheduled quarterly. Fred G. Emrich, Secy., P.O. Box 1488, Natchez 39120. Counties: Adams, Jefferson.

*North Central District Medical Society*, 3rd Wednesday, March, June, September, January. Charles S. Watras, 612 Summit St., Winona 38967. Counties: Attala, Carroll, Chickasaw, Itawamba, Lee, Monroe, Pontotoc, Prentiss, Tishomingo, Union.

*Northeast Mississippi Medical Society*, 1st Thursday, March, June, September, December. Roger L. Lowery, Secy., 618 Pegram Dr., Tupelo 38801. Counties: Alcorn, Calhoun, Chickasaw, Itawamba, Lee, Monroe, Pontotoc, Prentiss, Tishomingo, Union.

*North Mississippi Medical Society*, 1st Thursday, April, September, December. Cherie Friedman, Secy., 424 South 5th, Oxford 38655. Counties: Benton, Lafayette, Marshall, Panola, Tate, Tippah, Yalobusha.

*Pearl River County Medical Society*, 2nd Monday, March, June, September, December. J. C. Griffing, Secy., Crosby Memorial Hospital, Picayune 39466. County: Pearl River.

*Prairie Medical Society*, 2nd Tuesday, March, June, September, December. Steve Parvin, Secy., 106 Strange Rd., Starkville 39759. Counties: Clay, Oktibbeha, Lowndes, Noxubee.

*Singing River Medical Society*, 3rd Monday, January, March, June, September, December. S. B. Fineberg, Secy., 2204 Old Mobile Hwy., Pascagoula 39567. County: Jackson.

*South Central Mississippi Medical Society*, 2nd Tuesday, March, June, September, December. Julian T. Janes, Secy., 304 Clark, McComb 39648. Counties: Copiah, Franklin, Lawrence, Lincoln, Pike, Walthall.

*South Mississippi Medical Society*, 2nd Thursday, March, June, September, December. Dan Jones, Secy., P.O. Box 2756, Laurel 39440. Counties: Covington, Forrest, George, Greene, Jasper, Jefferson Davis, Jones, Lamar, Marion, Perry, Smith, Wayne.

*West Mississippi Medical Society*, 2nd Tuesday, January, March, May, September, October, November, 6:30 p.m., Maxwell's Restaurant, Vicksburg. Martin E. Hinman, Secy., The Street Clinic, Vicksburg 39180. Counties: Issaquena, Sharkey, Warren.

### Mississippi Institutions and Organizations Accredited for Continuing Medical Education

The following Mississippi institutions and medical organizations have been accredited in accordance with the "Essentials for Accreditation of Institutions and Organizations Offering Continuing Medical Education Programs" of the Liaison Committee on Continuing Medical Education. Information concerning CME programs for physicians offered by these accredited sources may be obtained by writing the Director, Continuing Medical Education, at the individual institution or organization.

Council on Scientific Assembly  
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Jackson, MS 39216

Mississippi Chapter  
American College of Surgeons  
Box 5229  
Jackson, MS 39216

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St. Dominic-Jackson Memorial Hospital  
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Jackson, MS 39216

Biloxi Regional Medical Center  
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Biloxi, MS 39533

Mississippi Radiological Society  
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**CONTRAINdications:** SORBITRATE is contraindicated in patients who have shown purported hypersensitivity or idiosyncrasy to it or other nitrates or nitrites. Epinephrine and related compounds are ineffective in reversing the severe hypotensive events associated with overdose and are contraindicated in this situation.

**WARNINGS:** The benefits of SORBITRATE during the early days of an acute myocardial infarction have not been established. If one elects to use organic nitrates in early infarction, hemodynamic monitoring and frequent clinical assessment should be used because of the potential deleterious effects of hypotension.

**PRECAUTIONS: General:** Severe hypotensive response, particularly with upright posture, may occur with even small doses of SORBITRATE. The drug should therefore be used with caution in subjects who may have blood volume depletion from diuretic therapy or in subjects who have low systolic blood pressure (e.g., below 90 mmHg). Paradoxical bradycardia and increased angina pectoris may accompany nitrate-induced hypotension. Nitrate therapy may aggravate the angina caused by hypertrophic cardiomyopathy.

Marked symptomatic, orthostatic hypotension has been reported when calcium channel blockers and organic nitrates were used in combination. Dose adjustment of either class of agents may be necessary.

Tolerance to this drug and cross-tolerance to other nitrates and nitrites may occur. Tolerance to the vascular and antianginal effects of isosorbide dinitrate or nitroglycerin has been demonstrated in clinical trials, experience through occupational exposure, and in isolated tissue experiments in the laboratory. The importance of tolerance to the appropriate use of isosorbide dinitrate in the management of patients with angina pectoris has not been determined. However, one clinical trial using treadmill exercise tolerance (as an end point) found an 8-hour duration of action of oral isosorbide dinitrate following the first dose (after a 2-week placebo washout) and only a 2-hour duration of effect of the same dose after 1 week of repetitive dosing at conventional dosing intervals. On the other hand, several trials have been able to differentiate isosorbide dinitrate from placebo after 4 weeks of therapy and, in open trials, an effect seems detectable for as long as several months.

Tolerance clearly occurs in industrial workers continuously exposed to nitroglycerin. Moreover, physical dependence also occurs since chest pain, acute myocardial infarction, and even sudden death have occurred during temporary withdrawal of nitroglycerin from the workers. In clinical trials in angina patients, there are reports of anginal attacks being more easily provoked and of rebound in the hemodynamic effects soon after nitrate withdrawal. The relative importance of these observations to the routine clinical use of isosorbide dinitrate is not known. However, it seems prudent to gradually withdraw patients from isosorbide dinitrate when the therapy is being terminated, rather than stopping the drug abruptly.

**Information for Patients:** Headache may occur during initial therapy with SORBITRATE. Headache is usually relieved by the use of standard headache remedies or by lowering the dose and tends to disappear after the first week or two of use.

**Drug Interactions:** Alcohol may enhance any marked sensitivity to the hypotensive effect of nitrates.

Iosorbide dinitrate acts directly on vascular smooth muscle; therefore, any other agent that depends on vascular smooth muscle as the final common path can be expected to have decreased or increased effect depending on the agent.

**Carcinogenesis, Mutagenesis, Impairment of Fertility:** No long-term studies in animals have been performed to evaluate the carcinogenic potential of this drug. A modified two-litter reproduction study in rats fed isosorbide dinitrate at 25 or 100 mg/kg/day did not reveal any effects on fertility or gestation or any remarkable gross pathology in any parent or offspring fed isosorbide dinitrate as compared with rats fed a basal-controlled diet.

**Pregnancy Category C:** Isosorbide dinitrate has been shown to cause a dose-related increase in embryo-toxicity (increase in mummified pups) in rabbits at oral doses 35 and 150 times the maximum recommended human daily dose. There are no adequate and well-controlled studies in pregnant women. SORBITRATE should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

**Nursing Mothers:** It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when SORBITRATE is administered to a nursing woman.

**Pediatric Use:** The safety and effectiveness of SORBITRATE in children has not been established.

**ADVERSE REACTIONS:** Adverse reactions, particularly headache and hypotension, are dose related. In clinical trials at various doses, the following have been observed:

Headache is the most common (reported incidence varies widely, apparently being dose-related, with an average occurrence of about 25%) adverse reaction and may be severe and persistent. Cutaneous vasodilation with flushing may occur. Transient episodes of dizziness and weakness, as well as other signs of cerebral ischemia associated with postural hypotension, may occasionally develop (the incidence of reported symptomatic hypotension ranges from 2% to 36%). An occasional individual will exhibit marked sensitivity to the hypotensive effects of nitrates and severe responses (nausea, vomiting, weakness, restlessness, pallor, perspiration, and collapse) may occur even with the usual therapeutic dose. Drug rash and/or exfoliative dermatitis may occasionally occur. Nausea and vomiting appear to be uncommon. Case reports of clinically significant methemoglobinemia are rare at conventional doses of organic nitrates. The formation of methemoglobin is dose related and, in the case of genetic abnormalities of hemoglobin that favor methemoglobin formation, even conventional doses of organic nitrates could produce harmful concentrations of methemoglobin.

**DOSAGE AND ADMINISTRATION:** For the treatment of angina pectoris, the usual starting dose for sublingual SORBITRATE is 2.5 to 5 mg. for chewable tablets, 5 mg. for oral (swallowed) tablets, 5 to 20 mg. and for controlled-release forms, 40 mg.

SORBITRATE should be titrated upward until angina is relieved or side effects limit the dose. In ambulatory patients, the magnitude of the incremental dose increase should be guided by measurements of standing blood pressure.

The initial dosage of sublingual or chewable SORBITRATE for prophylactic therapy in angina pectoris patients is generally 5 or 10 mg every 2 to 3 hours. Adequate controlled clinical studies demonstrating the effectiveness of chronic maintenance therapy with these dosage forms have not been reported.

SORBITRATE in oral doses of 10 to 40 mg given every 6 hours or in oral controlled-release doses of 40 to 80 mg given every 8 to 12 hours is generally recommended. The extent to which development of tolerance should modify the dosage program has not been defined. The oral controlled-release forms of isosorbide dinitrate should not be chewed.

**DOSAGE FORMS AVAILABLE:** Sublingual Tablets (2.5, 5, 10 mg); Chewable Tablets (5, 10 mg); Oral Tablets (5, 10, 20, 30, 40 mg); Sustained Action Tablets (40 mg).

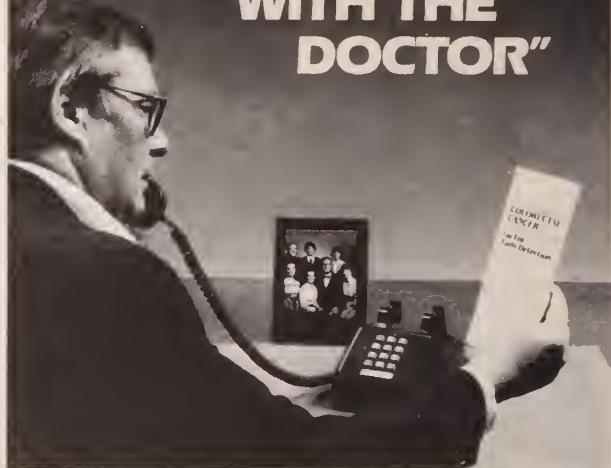


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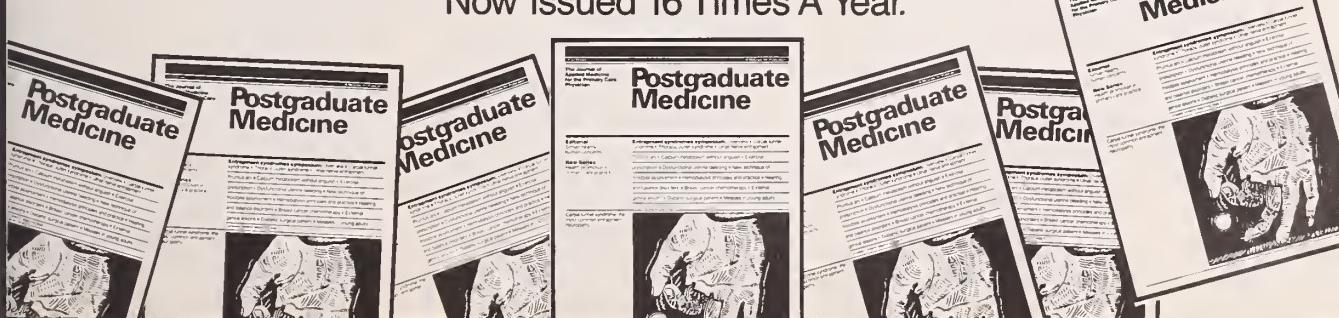
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**BACK ROW:** (Left to right) D.B. Conerly, M.D., Hattiesburg, MS; James M. Cooper, M.D., Tupelo, MS; Ralph L. Brock, M.D., McComb, MS; Louis A. Farber, M.D., Jackson, MS; Paul H. Moore, Sr., M.D., Pascagoula, MS; Joe S. Corington, M.D., Meridian, MS.



ORIGINAL PAPERS

# Screening Colorectal Cancer — Invasive Measures

WALTER T. BOONE, M.D.

Jackson, Mississippi

IN PATIENTS WITH no known gastrointestinal pathology, positive fecal occult blood tests occur uncommonly, less than 10%.<sup>1</sup> In patients screened for colorectal cancer adhering to a low peroxidase diet, false-positive fecal occult blood tests occur in 2% of individuals.<sup>2</sup>

Once a positive occult blood test has been obtained, it is tempting to try and confirm a single test by enforcing dietary restrictions or testing additional stools for blood. Variability in daily blood loss from neoplastic colonic lesions is documented. If the fecal occult blood test is to serve as a screening device, an invasive diagnostic evaluation should be performed with evidence of a single positive fecal occult blood test.

Although benign or malignant lesions of the upper gastrointestinal tract can present with occult bleeding, experience has demonstrated a very low yield of tumors when upper radiographic studies and endoscopy has been performed as the result of a positive fecal occult blood test when no colonic tumors have been seen. Only two of twenty-six patients subsequently found to have esophageal cancer had occult blood in one or more of six stool specimens.<sup>3</sup> In a mass screening program of more than a thousand patients with no clinical evidence of bleeding, only 8% of those with a positive fecal occult blood test were subsequently found to have upper gastrointestinal tract pathology.<sup>4</sup>

Dr. Boone is engaged in the private practice of gastroenterology in Jackson, MS.

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*In this article, the second of three, the author remarks that a positive hemoccult test is most likely to be of colonic origin. He discusses the advantages of flexible sigmoidoscopy and notes that air contrast barium enema and colonoscopy compliment each other in diagnostic usefulness. He maintains that if fecal occult blood tests are to be effective screening devices, a single positive test demands a complete diagnostic evaluation.*

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These observations, in part, reflect the fact that significantly larger quantities of blood must be lost from lesions in the upper gastrointestinal tract compared with those in the lower gastrointestinal tract to produce a positive guaiac slide test of limited sensitivity. Inactivation of peroxidase by gastric acid or proteolytic enzymes appears to occur during transit through the gastrointestinal tract.<sup>5</sup>

Cancer in the small intestine is uncommon and accounts for less than 2% of all GI tract cancers. In an otherwise asymptomatic adult, benign disorders of the small intestine usually do not present with occult GI bleeding only.

When occult blood is present in the stool of an adult asymptomatic patient, blood loss most often originates from the large bowel. If screening for colorectal cancer is to be effective, invasive diagnostic procedures must follow a positive fecal

occult blood test. At present, the invasive measures include radiological studies and endoscopic procedures.

The radiologic contribution to more frequent detection of early colon cancer hinges on getting sharp, detailed pictures of the mucosal outline of the large intestine. Unfortunately, with the standard barium enema study, such pictures are all too infrequently obtained. The regular barium enema without good air contrast technique can miss as many as 40% of polypoid lesions and 20% of carcinomas as compared to a good air contrast barium enema.<sup>6</sup>

For hemoccult positive patients at risk for colon cancer, most radiologists now consider double or air contrast barium enema the method of choice. Instead of the low density suspension used as a standard method, the air contrast method uses a higher density barium sulfate suspension, and the colon is insufflated with air. The combination of a high density contrast medium in the distended bowel works to promote a deposition of a thin, even layer of barium on the bowel wall, which in turn makes it possible to obtain clear, detailed pictures of the mucosal outline.

From a practical standpoint, the major disadvantage of air contrast barium enema is poor patient preparation. Newer advances in patient preparation may be easier for the patient and more advantageous for the radiologist.<sup>7</sup> Adequate distension of segments of bowel with diverticulosis also poses problems. Overlapping loops of a redundant sigmoid

colon may hide significant pathology.

The standard 25.0 cm. rigid sigmoidoscope has been the main surveillance tool for carcinoma of the colon for many years. In spite of its unquestionable value in the evaluation of patients with colon disease, significant problems have limited its diagnostic usefulness. The major deficiency of this instrument is that the average sigmoidoscopist inspects only the distal 15.0 to 18.0 cm of the colon. Jokes about the discomfort produced by rigid sigmoidoscopy attest to patient perception of the procedure. The more difficult the procedure the less patient compliance for periodic evaluation.

The previous teachings that 75% of all colorectal cancers are potentially detectable by a digital rectal examination along with sigmoidoscopy is no longer tenable. Multiple studies have now begun to show a significant right-sided shift in colorectal cancer.<sup>8, 9, 10</sup> Thus, the potential of finding colon cancer by rigid sigmoidoscopy may be diminishing.

Because of these limitations, flexible sigmoidoscopy has been under evaluation for the last five to ten years as a potential replacement for rigid sigmoidoscopy as a screening instrument. A comparison of the standard proctoscope with the Olympus OSF 35.0 cm and the OSF 60.0 cm instrument is shown in Figure 1. Several studies have indicated the higher yield of neoplastic lesions by flexible sigmoidoscopy compared to rigid sigmoidoscopy. No doubt this is due to a more thorough examination of the distal 25.0 cm of the colon plus extension of the area



Figure 1

visualized from 25.0 to 60.0 cm in the sigmoid descending colon.<sup>11, 12</sup>

Initial experience with the flexible sigmoidoscope has been gained with the 60.0 cm instrument and required the expertise of an endoscopist. The newer model of 35.0 cm in length is designed for primary physicians for use in the office and hospital screening programs. There is concern for the potential compromise for neoplastic lesion detection between the 35.0 cm and the 60.0 cm instruments.<sup>13</sup>

In comparison with the rigid instrument, the 60.0 cm flexible sigmoidoscope examines two to three times more bowel and results in a five-fold to six-fold increase in detection of polypoid lesions. The procedure takes twice as long as the rigid scope examination, but is easily tolerated by the patient. With intense hands-on teaching programs, the newer 60.0 cm flexible scope is easily learned and safely used.

Colonoscopy has revolutionized our diagnostic and therapeutic capability when dealing with colonic disease and will continue to contribute to the investigation of patients suspected of having colon cancer.<sup>14, 15</sup> Colonoscopy has extended the routine endoscopic observation of the colon from the 18.0 cm to 25.0 cm area to the entire colon. Frequently, polyps and cancers not visualized by good quality barium enemas have been detected by colonoscopy. Colonoscopy can be used to pursue a negative barium enema in patients with symptoms suggesting neoplastic disease. It can clarify an equivocal air contrast barium enema. It can confirm a positive barium enema and search for additional synchronous lesions which occur in approximately 3%-5% of patients with cancer of the colon.<sup>8</sup> Colonoscopy is quite useful in the evaluation of the postoperative colon, in patients with polyposis syndrome, and in the assessment of inflammatory bowel disease in certain situations. In patients with chronic inflammatory bowel disease it is extremely difficult to detect cancer except by direct mucosal examination and random biopsies. Colonoscopic polypectomy is both a diagnostic and therapeutic procedure because it provides total excision of the lesion. With newer instruments, the experienced endoscopist can reach the cecum in over 90% of patients. The false-negativity of colonoscopy for cancers has not been determined but for lesions over 1.0 cm in size, a range of 6%-8% is expected.<sup>16</sup> Technical difficulties occur when the bowel has been fixed by previous pelvic surgery, radiation or hairpin turns secondary to diverticulitis. Patient tolerance and pain threshold are also limiting factors.

Several studies have now indicated the greater

yield of neoplastic lesions by colonoscopy as compared to barium enema.<sup>17, 18</sup> Colonoscopy and quality air contrast barium enema should not be viewed in competition with each other but as being complimentary to each other. In patients with redundant loops of sigmoid colon, diverticular disease or improper preparation, the colonoscope is far superior to barium enema in its diagnostic potential. There are blind spots in the splenic flexure and hepatic flexure for the colonoscope. These areas can be adequately visualized by quality air contrast barium enema. In some patients, technical factors prevent total colonoscopy. The air contrast barium enema, demonstrating the anatomy of the right colon, is ideal when complete colonoscopy is unsuccessful.

It is hoped that a specific and sensitive tumor marker, preferably isolated in peripheral blood, will provide a basis for the early detection of carcinoma of the colon at an early stage. Until that time, we must continue to rely on a combination of non-invasive and invasive methods to identify neoplastic lesions at a curative stage. ★★★

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# **Evaluation of the Infertile Couple**

**G. RODNEY MEEKS, M.D., Moderator**

**Jackson, Mississippi**

**DR. MEEKS:** A 27-year-old, gravida 1, para 0 white woman presented with infertility. She had conceived spontaneously approximately 18 months earlier, but had a spontaneous abortion. What is the definition of infertility and how significant a problem is it?

**DR. HOGAN:** Most people define infertility as the inability to conceive after 12 months of unprotected regular intercourse. In the United States it is estimated that 10% to 20% of couples are infertile.

**DR. ABRAHAM:** The need for physicians to treat infertility is much greater today than at any time. This increased need is partially the result of the unavailability of babies for adoption. Also, the incidence of infertility appears to be increasing. Couples delay marriage or postpone having children to establish careers. Many couples are then beyond the time of optimal fertility, which is 24-25 years of age. Additionally, the risk of prolonged anovulation following oral contraceptive pills and of adnexal infections associated with intrauterine devices or therapeutic abortions may be increased. Finally, the epidemic of venereal disease has produced a rise in sterility caused by obstruction of the reproductive tracts in both men and women.

**DR. INGRAM:** I will begin a work-up earlier than one year in women who are over age 35 or who do not have regular menses. The male partner also should be involved from the onset. Not only is he physiologically responsible for approximately 40% of the problem, but a shared commitment in the decision making process is essential.

**DR. MEEKS:** What are common causes of infertility?

**DR. HOGAN:** The causes of infertility are best divided and investigated on an anatomic basis. Infer-

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**Panelists:** *Marcus Hogan, M.D., Hattiesburg; Wadie "Woody" Abraham, M.D., Meridian; and Fred H. Ingram, M.D., Jackson.*

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tility can be attributed to male causes in approximately 40% of couples and female causes in approximately 60%. Azoospermia and oligospermia are the most common male problems, while sexual dysfunction is relatively uncommon. Ovulatory problems cause female infertility approximately 30% of the time, tubal obstruction 30%, peritoneal disease 30%, and uterine, cervical and other miscellaneous categories 10%. At least 20% of couples have a combination of male and female factors, and as many as 35% of infertile couples may have multiple etiologies.

**DR. INGRAM:** The average length of time needed to achieve conception for a normal couple is 5.3 months. Twenty-five percent of the couples will achieve pregnancy after one month, 63% by six months, 75% by nine months and 80% at 12 months. An additional 10% will conceive within six months after the arbitrary limit of one year without medical intervention. However, by that time most physicians will have begun an investigation.

**DR. MEEKS:** How do you evaluate an infertile couple?

**DR. ABRAHAM:** A thorough history is the foundation of the infertility work-up. The gynecologic history may reveal menstrual irregularity, symptoms of endometriosis, previous infection or pelvic surgery. Inference may be drawn when one or both partners have previously parented a child. The sexual history deserves special attention. Sexual dysfunction such as premature ejaculation or impotence is responsible in some cases. Some practices are detrimental to

conception, for example the use of sexual lubricants and postcoital douching which may be spermicidal.

DR. HOGAN: The frequency and the timing of intercourse are other obviously important factors. Intercourse more frequently than once per day may deplete the sperm count, while intercourse less than every second day may miss ovulation. Symptoms such as mood changes, breast tenderness, acne, Mittelschmerz (midcycle ovulatory pain), intermenstrual spotting, increased midcycle discharge, and dysmenorrhea are indicative of ovulation. The phenothiazines and certain of the chemotherapies for malignancy may impair fertility.

DR. INGRAM: The physical examination complements the history. Special attention should be paid to endocrine and reproductive features. Thyroid evaluation should include checking for exophthalmos, lid lag, tremor and a palpable gland. The optic fundi should be examined to rule out increased intracranial pressure, and the breasts should be examined specifically for galactorrhea. During a pelvic examination a routine pap smear and gonorrhea culture should be taken. The shape of the escutcheon and the size of the clitoris should be noted. The cervical mucus should be examined for estrogen effect (spinnbarkeit and cervical ferning) and for evidence of cervicitis which may be responsible for immobilizing sperm. Bimanual exam may reveal congenital abnormalities, tumors of the fundus, or evidence of endometriosis. It will also allow determination of ovarian size which may suggest polycystic ovarian disease or hormonally active tumors.

DR. MEEKS: Her pregnancy had been confirmed by a positive urine pregnancy test but she did not require dilatation and curettage. Her menarche was

at age 13. Her menstrual cycle had always been irregular. Her last menstrual period had been approximately two months earlier and lasted five days. She had gone as long as four months without menses. When given progestational agents she would have a withdrawal period. The patient was an attractive, well-groomed white woman. Her blood pressure was 140/70. She stood 62 inches and weighed 137 pounds. The breasts were normal without galactorrhea. External genitalia were normal with a normal escutcheon. The vagina was pink and rugated. The cervix was normal. A moderate amount of clear cervical mucus with a spinnbarkeit of 8 cm was present. The uterus was anteflexed, normal size and mobile. The ovaries were approximately 4 cms in size and felt to be slightly enlarged. Her general physical exam was unremarkable.

Her general physical exam was unremarkable.

DR. HOGAN: The husband must be evaluated also. While I do not normally examine the husband, I do a thorough history. When the growth spurt started, when acne appeared and when he began to shave are important. Whether ejaculation occurs with orgasm and whether he has parented a child previously should be determined. Exposures to toxic influences such as x-rays, lead and organic chemicals may be important. Personal habits such as the amount of alcohol consumed, the kind of underwear worn and bathing habits are critical. Although not as marked as with women, male fertility decreases with age.

**DR. INGRAM:** Ordinarily I request that the husband see a urologist. The examination should include notation of penis size, the presence or absence of phimosis, location of the urethral meatus, and the consistency of each testis, vas deferens and epididymis. It is critical to locate a varicocele, which is most

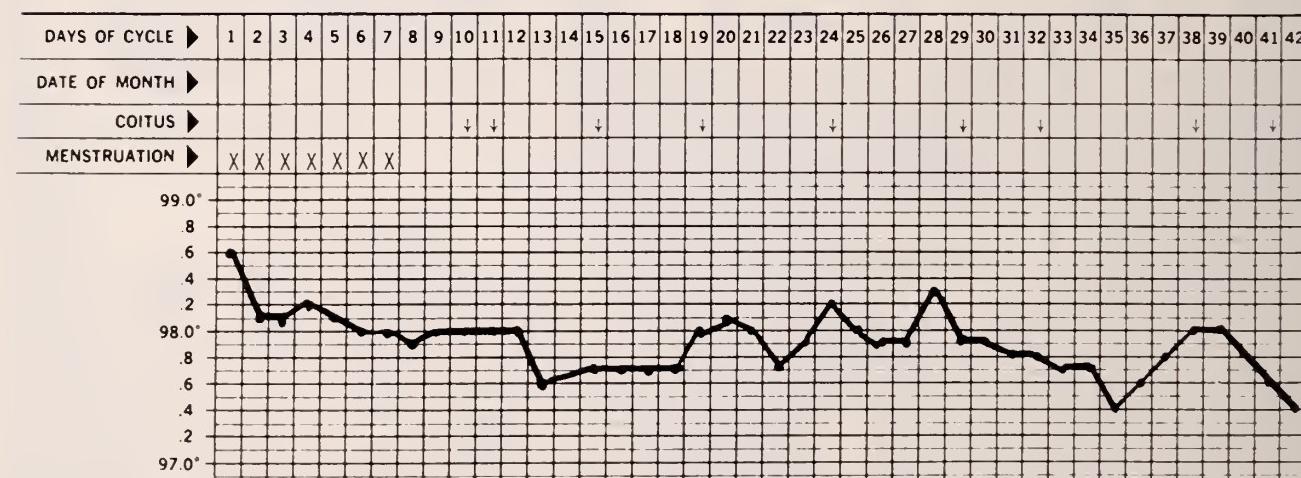


Figure 1. The temperature chart is monophasic, which is characteristic of anovulation.

common on the left. The size and consistency of the prostate and seminal vesicles can be determined by rectal exam. A prostate massage will allow seminal fluid to be examined.

DR. MEEKS: How long should a standard work-up take?

DR. ABRAHAM: At the end of this visit the physician should review with the couple any abnormal findings. The basic work-up should then be outlined, and a plan of evaluation presented to the couple. Although the length of time necessary to complete the evaluation varies with what the couple needs, ordinarily the evaluation can be completed in three months. Certainly it should not take longer than six months.

DR. INGRAM: An infertility investigation may place many psychological stresses on the couple who may already be troubled about their reproductive failures and/or sexual compatibility.

DR. HOGAN: Many patients anticipate immediate success. Few are prepared for the stress and inconvenience that they may be asked to endure. A stable conjugal partnership and compassionate clinician are important. The couple should be made aware of the motivation that is necessary for the evaluation. They should be encouraged to be open in their communication with each other and with the physician.

DR. MEEKS: What laboratory evaluation is helpful?

DR. HOGAN: Four basic tests are important for all couples: the basal body temperature chart (BBT), hysterosalpingogram, the postcoital examination, and semen analysis.

DR. MEEKS: What historical features are important in this case?

DR. ABRAHAM: The irregularity of menses implies either anovulation or oligoovulation. The fact that the patient was able to conceive once is reassuring.

DR. MEEKS: What aspects of the physical examination are important?

DR. HOGAN: The ovaries are somewhat enlarged and the patient is somewhat overweight for her height. With the history of irregular cycles and with enlarged ovaries and mild obesity I would consider polycystic ovarian disease (Stein-Leventhal Syndrome). There was no hirsutism which would be somewhat unusual.

DR. MEEKS: How could one interpret the temperature charts shown in Figure 1?

DR. INGRAM: The temperature is monophasic which is the characteristic pattern of anovulation. This woman's periods have been irregular and she has had amenorrhea for as long as four months. On a

clinical basis I would agree that this woman has polycystic ovarian disease.

DR. MEEKS: Would additional BBT's and laboratory studies be helpful or should therapy begin immediately?

DR. HOGAN: One could order FSH, LH, androstanedione and testosterone to document polycystic ovarian disease. However, with the clinical history, a successful trial of therapy would support the diagnosis.

DR. INGRAM: Prolactin concentration would be important. A patient who does not have galactorrhea may have an elevated prolactin. Indeed, small increases in prolactin may be important from an infertility standpoint but may not produce galactorrhea or amenorrhea.

DR. ABRAHAM: Once pregnancy has been ruled out with either your physical examination or a pregnancy test, one should withdraw the patient with progestational agent. This documents adequate estrogen stimulation and a normal uterus. Clomiphene can then be given.

DR. MEEKS: How do you administer clomiphene?

DR. INGRAM: I would give clomiphene beginning on the fifth day of her period. There is some controversy regarding the best day to begin clomiphene and some people begin on day 2.

DR. MEEKS: What do you do if the patient is late for her next menses?

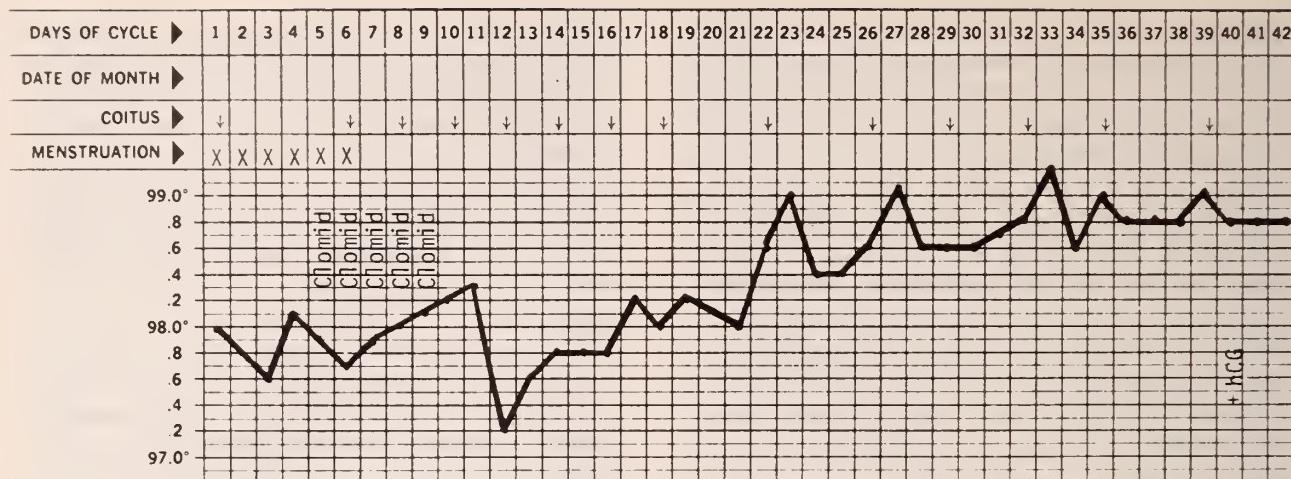
DR. ABRAHAM: If she is late for her next menses I review the BBT. If it is biphasic and she is further than 20 days from her date of ovulation I suspect pregnancy and order a pregnancy test. If the chart is not biphasic then she probably did not ovulate. I would give medroxyprogesterone (Provera) to induce bleeding and then repeat the clomiphene.

DR. MEEKS: This patient was given clomiphene 50 mg daily on days 5-9. She presented for evaluation two weeks after her expected menses. Her temperature had been elevated above 98° for 25 days (see Figure 2). Examination at that time revealed a cyanotic cervix with thick sticky cervical mucus. The uterus was soft but normal size. A serum pregnancy test was positive. When is laparoscopy indicated?

DR. ABRAHAM: Ordinarily, laparoscopy is best done after completion of the other portion of the work-up.

DR. HOGAN: I do diagnostic laparoscopy on "unexplained" infertility, and on patients who have an abnormal hysterosalpingogram.

DR. INGRAM: I do not have a specific time for laparoscopy. However, if the basic evaluation is normal, laparoscopy is indicated. Indeed, it would



*Figure 2. The temperature chart is biphasic, which indicates ovulation. Once the temperature is elevated for 20 days pregnancy is very likely.*

seem that approximately 30-50% of otherwise normal patients who are unable to become pregnant have endometriosis. Often the only way this can be documented is with laparoscopy. If I suspect endometriosis from physical examination, I document by laparoscopy rather than treating it empirically.

**DR. MEEKS:** Are there complications associated with clomiphene and how many cycles would you utilize clomiphene?

**DR. HOGAN:** I believe that there are two complications. One is multiple gestation and the other is ovarian hyperstimulation. The incidence of twins associated with clomiphene is around 6%. The incidence of hyperstimulation is usually low; however, I have had a patient who had a hemoperitoneum from a ruptured corpus luteum cyst.

**DR. ABRAHAM:** I would increase the clomiphene if she did not ovulate on 50 mgs daily for five days. I have gone up as high as 150 mgs and very rarely to 200 mgs daily for five days. Certainly if the patient fails to conceive after six months of ovulation, irrespective of the dose of clomiphene, I would reevaluate the patient.

**DR. MEEKS:** In summary, the evaluation of the infertile couple must address both male and female factors. Approximately 40% of the couples will have a male factor. This can usually be evaluated by history to insure that the frequency of intercourse is adequate and that there is no sexual dysfunction. The evaluation of a fresh semen and an appropriately timed postcoital test document normal sperm production, morphology and motility. Approximately 60% of couples will have an identifiable problem with the woman. In the course of evaluation, ovulation should be documented, and tubal obstruction, uterine factors and cervical factors should be eliminated. It is important to appreciate that in approximately 20% of cases there is both a male and a female factor. The emotional stress placed on the infertile couple must be appreciated by the physician. Therapy must be individualized once a problem has been identified.

I would like to thank our panelists for coming today. They have taken time from busy practices to share their expertise with us. **★★★**

2500 North State Street (39216)

# **Malpractice Litigation — A Personal Viewpoint**

**C. G. SUTHERLAND, M.D.**

**Jackson, Mississippi**

THIS WRITER HAS always felt that physicians should be encouraged to participate in medical malpractice litigation depending upon their personal philosophy, desires and the merits of the case. It would be counter-productive and self-defeating if *all* doctors refused to participate in medical malpractice cases. Currently, the proper functioning of our judicial system is an attempt to adjudicate a professional liability claim in an equitable fashion is almost always contingent upon the participation of experts in the field. Should the time ever come when there was no participation by experts, it would be reasonable to assume that the judicial system, of necessity, would be changed.

### **Locality Rule**

Currently, Mississippi physicians are judged under a locality rule interpretation that we feel is fair to each side. In essence, our State Supreme Court has said that medical experts in a malpractice trial should be familiar with the standard of care in Mississippi and should reside within a "reasonable distance" from our state's borders. Needless to say, some plaintiff attorneys are quite dismayed by this ruling and at this writing are attempting to get our Supreme Court to reconsider its position and subject the physicians in this state to a so-called "National Standard of Care."

At first blush, one might conclude that a national standard of care is both innocuous and fair. Of course Mississippians are entitled to as high a level of medical care as are those who live in New York or California. Why should medical experts from Boston or Chicago be excluded from the courtrooms in

Mississippi? Never mind that these experts may never have been in this state, talked to a physician in this state, or treated a patient from this state. Never mind that some of these experts allegedly make a significant proportion of their income from testifying all over the country.

On second blush then, after a more detailed analysis, one might conclude, as we did, that there is no such thing as a National Standard of Care. "Good Medical Care," under similar circumstances, might well be judged on a national basis — but "Good Medical Care" and "National Standard of Care" are not synonymous. In no way will the "standard of care" in a small Mississippi hospital ever be the same as it is in a large medical center in New England. Hospital facilities, laboratories, anesthesia, nursing care, surgical expertise, housestaff — these are just a few of the variants that belie the thesis that there is a National Standard of Care in medicine.

There is no more of a national standard of care in the practice of medicine than there is a national standard of care in the practice of law. Witness the 180-degree difference of opinion that occurs at times in the ruling of one state supreme court as compared to another. There are many examples. In some states, a shortened statute of limitations for minors is constitutional — in others it is not. The same can be said for the constitutionality of compulsory arbitration, collateral source laws, liability for raising a child in wrongful birth suits, and on and on. But rest assured that if all Mississippi physicians refused to participate in the adjudication of medical malpractice suits, then we would be subjected to a National Standard of Care and experts from all over would be here to testify.

Finally, consideration should be given to the fact that any practicing physician in this state faces the

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Dr. Sutherland is the Medical Director of Medical Assurance Company of Mississippi.

likelihood of being sued for malpractice at some time during his medical career. Malpractice suits against Mississippi physicians, which have already reached an alarming level, continue to increase in frequency. And if you're sued and hope to prevail, you will probably need some of your peers to assist in your defense.

Should you choose to participate, perhaps the following observations might be worthy of your consideration. Admittedly, this represents a personal opinion, the validity of which is open to challenge.

### **Expert Witness**

By legal definition, medical malpractice is negligence (sub-standard care) that directly causes (proximate cause) injury. All of these three elements (negligence-proximate cause-injury) must be present in order for the definition of malpractice to be satisfied. Negligence without injury is not actionable. And the attorney in the courtroom while you are on the witness stand will ask you in effect, "and doctor, based on all of the evidence in this case, to a reasonable medical probability, did Doctor X meet the standard of care?" Obviously, your answer is extremely important as to the outcome of the case.

Which brings us to a closer look at the role of the medical expert. In our current judicial system, the decision as to whether or not sub-standard care resulted in injury that should be compensated is made by lay persons (judge or jury). In other words, the definition of malpractice is whatever the judge or jury says it is. It is an exercise in futility to argue the merits of the system — that's the way it is. And usually the only way a lay person can reach a fair conclusion is through education — education provided by the expert witness.

In theory at least, the expert witness should *not* be an advocate for either side. He should be expressing a learned, unbiased opinion, based on a careful, complete review of the case, as to whether or not the defendant physician breached the standard of care. In effect, his role is to assist the court as it attempts to reach a just decision. Theoretically, he is not testifying "for" or "against" either side. (It is true that he is called to testify by one or the other side and is reimbursed for his time by whichever side calls him to testify.) It should be a moot question for him to be asked "Doctor, how many times have you testified *for* the plaintiff/defense?" in an effort to discredit him. Again, he *should* be testifying in an attempt to be of assistance to the court — not as an advocate for either side.

Unfortunately, at times, what is true in theory is

not what happens in fact. Seemingly, some experts forget that the practicing physician is only required to do what a reasonable, prudent, adequately trained physician would have done under similar circumstances. Just because the defendant physician chose a different approach than the expert would have chosen does not make him guilty of malpractice. Just because trainees at Tulane may get a different philosophy than trainees at Mayo Clinic does not mean that either is wrong. Legally, the defendant physician is not even held to a course of action that *most* physicians may have chosen. If a substantial minority would have agreed with his treatment, then legally it was an acceptable course for him to have followed.

It is also unfortunate that some medical experts choose to become advocates, with the result being that the expert endeavors to fit his advocacy posture to a retrospective, myopic, non-objective analysis in an attempt to assure victory for the side which asked him to testify. In some instances, we have observed medical experts called by the plaintiff express opinions concluding that the medical problem had been mishandled and the standard of care had indeed been breached. Interestingly, these experts were testifying about the treatment of a pathological entity which was different from what the patient actually had. Their advocacy had blinded them to the facts of the case.

There is no "conspiracy of silence" among physicians in Mississippi. When this charge is hurled, one can only wonder if the accuser is including those suits that were filed (without prior review by a physician) in which the plaintiff's attorney cannot find a physician to testify for the simple reason that *there was no malpractice to begin with*. In one case to our knowledge, the plaintiff's attorney was repeatedly informed that there was no malpractice. Undaunted, he proceeded anyway, without the benefit of supportive expert testimony. He did not prevail in the courtroom.

There is, however, a definite reluctance among many, if not most, physicians to get involved in a malpractice case. This reluctance is quite understandable. Malpractice litigation is a game we don't understand, played by rules we don't understand, and the attorneys have the home court advantage. Participation can be time consuming, frustrating, and unpleasant even under the best of circumstances. Cases are tried under the adversary system — and adversary means just what it says. Each side attempts to present its argument to the jury in the best light possible, including attempts to impeach the credibility of the witnesses for the other side. And

since what the attorney says in his closing argument is "privileged," he cannot be held responsible for what he says. It has been a sad and sobering experience to hear attorneys viciously attack the honesty, integrity and motivation of the medical expert for the other side. One must conclude that such tactics, used at a public forum, can only succeed in demeaning two proud and honorable professions and does nothing to elevate either in public esteem. (Not to mention the fact that such efforts were singularly unsuccessful in the hoped-for effect on the jury in the cases we observed.) Such tactics are not used by most attorneys, but the potential for such judicial abuse is always there. Understandably then, there is a reluctance among many physicians to become involved. The fact remains, however, that, in the final analysis, it is to our best interests to become involved.

### Reviewing a Case

The question has been asked repeatedly as to what course to take when an attorney asks you to review a case. Invariably, we have encouraged the physician to agree to review the case and to express an opinion. This does *not* mean that you are automatically agreeing to testify. You may or may not elect to do so. (If the attorney doesn't like your opinion, he is likely to seek other opinions hoping to find one that supports his theory of malpractice.) But your opinion may well prevent the filing of a non-meritorious suit in the first place.

It only makes sense that if you are to reach a valid conclusion in malpractice evaluations, you must have the *entire story* — not just the part that an individual attorney may want you to have. Of necessity then, this means a review of the *entire record*, plus information from any other source that would be of benefit to you in reaching your conclusion.

The validity of this statement has been substantiated repeatedly at meetings of our Claims Committee. Prior to the meeting, each member of the committee is furnished a copy of all available records of the case. At times, a review of the records alone causes one to lean toward a conclusion of negligence on the part of the physician. Then after hearing the physician's explanation of his care of the patient, an entirely different conclusion may be reached.

All or part of one physician's philosophy in this regard might be worthy of your consideration. This physician does review cases for either side, but he

establishes the following ground rules with the attorney *up front*:

1. He will review the case and will give the attorney an opinion.
2. He insists upon reviewing the entire record and upon being informed of any other information the attorney may have that has a bearing on the case.
3. He reserves the right to talk to anyone involved, including the defendant physician, before giving an opinion.
4. He retains the option, after review, to testify or not to testify and also retains the option to testify for either side as his conscience might dictate.
5. He and the attorney agree on an hourly fee for his time with said fee to be paid irrespective of any future participation on his part.
6. At the beginning, a written agreement to these conditions is obtained from the attorney.

Some attorneys may well refuse to agree to these stipulations. Perhaps they would feel that since they had paid you for your time in reviewing the case, then you are certainly not free to testify for the other side if you choose. After all, you have been privy to "privileged information."

The fallacy of such an attitude by the attorney is obvious if we are talking about "truth and justice." The validity of such an attitude is obvious if we're talking about "winning a case." For example, let's say that a plaintiff's attorney gets ten doctors to review a case. He pays them for their time. All ten tell him that he has no case. He persists and finally finds an M.D. that supports his position — but unless otherwise stipulated up front, the original ten may have been effectively blocked from giving testimony that would be supportive of the defense. So, we are back to square one — are we talking about truth and justice or are we talking about winning a case?

The decision is yours as to whether or not you review a case. The decision is the attorney's as to whether or not he will agree to any stipulations on your part.

Hopefully more and more physicians will become participants in the malpractice litigation process. And hopefully, more thought will be given to what their role is as well as what their role should be.



P. O. Box 4625 (39216)

# A WORD TO THE WHYS

## WHY AMA?

cal Education through its participation in the Accreditation Council for Continuing Medical Education (ACCME). The AMA also helps reduce the high cost of CME by offering 28 Video Clinic study courses for CME credit. Upholding CME standards and providing cost-effective CME alternatives: it's one more good reason why you should be a part of the AMA.

## WHY AMA?

The AMA provides a democratic forum where you, along with your colleagues across the country, can raise and argue issues, reach a consensus and formulate policy. AMA policy is then translated into practical actions on issues that affect you and your practice. Making sure medicine stays active, strong and united: it's one more good reason why you should be a part of the AMA.

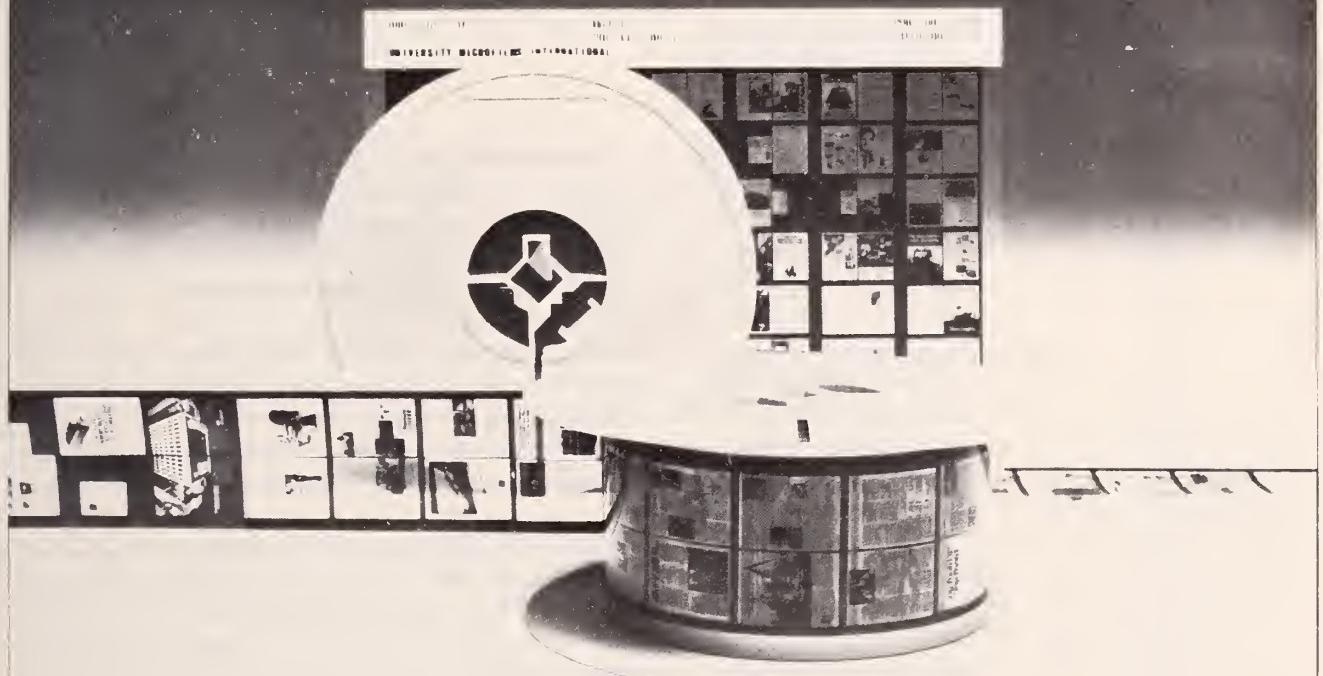
## WHY AMA?

The AMA has taken an important initiative in combating prescription drug abuse. An informal steering committee organized by the AMA has developed a data analysis system that would help states detect sources of prescription drug diversion. Cracking down on prescription drug abuse: it's one more good reason why you should be part of the AMA.

**To Join,** Contact your county or state medical society or write:  
Division of Membership, AMA, 535 North Dearborn Street, Chicago,  
Illinois 60610 or call collect, (312) 751-6196.



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## The President Speaking

### Wrap-Up

**Ellis M. Moffitt, M.D.  
Jackson, Mississippi**

This past year I have attempted to introduce you to a new way of thinking about your practice. You have been exposed to articles on competition. You have been introduced to marketing your practice. More recently, in an attempt to bring these two subjects together, I have written a series of articles on alternate health care delivery systems.

A friend and I were talking on one of these beautiful spring days recently and he said, "It is just a matter of time before some organization starts a PPO in Mississippi." I agree. My desire, in my writings, is that you be informed of these important subjects and be ready to make a logical and orderly decision when the time comes.

Recently the *Internist* devoted a whole issue to the fragile alliance of business and medicine under the title of coalitions on health care. These coalitions include business, labor and medicine. There is a gradual trend to exclude medicine from these except in an advisory capacity. The coalitions are using this as a "muscle flexing" exercise as bulk buyers of medical care in an effort to warn the medical community they will not tolerate health care costs that escalate any greater than the normal inflation rate.

Fortunately we do not have much of this attitude prevailing in Mississippi, but we have had some near misses. The PPO idea at Baxter Laboratories in Cleveland, Mississippi, got started for a number of reasons: (1) the home office in the Chicago area implemented a PPO because of the competitive nature of health care in the Chicago area; (2) the increasing cost of health care at a far greater rate than general inflation; and (3) the overutilization of the health care system by employees in spite of repeated efforts by management to educate the patients in effectively utilizing the health care system. This PPO approach worked well for Baxter in the Chicago area. Then they implemented one in their Arkansas plant. It was only natural that one be started in Cleveland.

The "gatekeeper" concept is being used in the Baxter Labs PPO. Under this type of plan, the patient must first be seen by a primary care physician, who will refer to a specialist if one is needed. No employee could be reimbursed for going directly to a specialist.

Blue Cross of Mississippi is about to get a PPO up and running  
*(Continued on page 139)*

## EDITORIALS

# JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION

VOLUME XXVI, Number 5

MAY 1985

### Changing Times

This editorial is written with mixed emotions. For almost 30 years I have been a staunch advocate of that last bastion of individual medical endeavor — solo practice. I looked forward to it all through medical school and it has been exactly what I wanted it to be . . . and at times a lot more. It is nice not to have to be responsible to anyone but yourself. The personal satisfaction of helping others is more intense due to a closer relationship with patients, ie, not sharing their illnesses and their ups and downs with another doctor. It has also been nice to know that you are your own boss. When you vacation or take time off you don't have to feel guilty about maybe not doing your share of the work. It is equally nice to know that the harder you work the more money you make.

Being the only doctor in town, we find ourselves called on for advice from all sides, whether medical or otherwise. Particularly in a small town the opportunities to help are enormous.

All this above is my testimony recommending solo practice. The flip side of this record says what you know too well already: "can to can't" working hours; on call at the time; no one to consult with on problems you see in the office; and more worries and responsibilities than any three people should have. There is, of course, no one to share expenses with, either.

I now have a partner, a son. My attitude toward solo practice has changed, but not my feeling about the practice of medicine. Isn't it wonderful?

Thank God I am a physician.

JOE JOHNSTON, M.D.,  
Associate Editor

### THE PRESIDENT SPEAKING

(Continued from page 138)

in northeast Mississippi. By the time this is printed it will be in the "ready to go" stage. I am glad to see Blue Cross has changed its marketing strategy, as everything I read and study from the most successful PPOs is that discounts are out and not cost effective. The most successful PPOs are those with strong medical directors and good utilization review.

There are others who are trying to establish PPOs. PPI of Mississippi is said to have several hospitals and their medical staff signed, but I am not aware of any business or industry which has signed.

There does seem to be interest among industry and insurance companies in PPOs. Hospital interest, like physician interest, is "lukewarm."

One of the best means I know of to offset the formation of an alternate health care delivery system in your area is to help us implement the report entitled, "Quality Medical Care at a Reasonable Cost," which was discussed and adopted at a special session of the MSMA House of Delegates in January. You will find it printed in its entirety in the March issue of the JOURNAL MSMA.

My suggestion to you is, be informed. Read everything you can about alternate health care delivery systems. If one comes to your community you will be able to make rational and intelligent decisions.

It has been a pleasure serving as your president and spokesperson this past year. Nina and I appreciate the many courtesies extended to us by you.

★★★

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## BOOK REVIEW

*The AMA and U.S. Health Policy Since 1940:*  
Frank D. Campion; Chicago: Chicago Review  
Press, 1984. \$25.00.

A few years ago, the AMA commissioned the writing of a book to record the history of the AMA since 1940. The book has been published, and I have had occasion to read it. I advise all physicians and those others who are interested in the socioeconomics of medicine to read it as well. The book is entitled *The AMA and U.S. Health Policy Since 1940*. The author is Frank D. Campion, a professional writer who graduated from Yale and subsequently worked for Time Incorporated, Life Magazine, and for the New York Stock Exchange as a public relations executive. He had been an employee of the AMA for seven years before undertaking the writing of this book.

The book is not an encyclopedia of facts and neither is it a simple chronology of the events that have occurred in the activities of the AMA. Rather, it is a well balanced and readable account of the AMA as it evolved and functioned during this time. Undoubtedly, many details, many issues, and many events have been excluded for the sake of brevity. Such exclusions invite distortions according to the bias of the author. Nevertheless, my perception as a member of the AMA House of Delegates since 1978 is that he has captured the personality and the changing moods of the AMA with remarkable clarity. The text contains an ample supply of facts and, in addition, the reader is supplied with an imposing list of references with which the serious student or the skeptic may fill in the factual gaps or corroborate the validity of the information contained within the book. The reader's interest is further enhanced by the deft interweaving of descriptions of personalities into the discussion of issues and events. At times, the book takes on more of the flavor of an adventure story than of a historical record.

The time encompassed by this history is a particularly eventful and turbulent period in medical affairs. The science and the art of medicine as well as the socioeconomics of the profession have undergone dramatic and revolutionary changes. The author dissects these changes into component parts and traces the parts chronologically to improve understanding of how important trends have developed. In

several chapters, his strategy is to identify important issues, most of which are prominent agenda items for today's debate, and to follow the trail of these issues from points of origin to the present time. As a result, a longitudinal perspective is provided which clearly defines the context of today's discussion. By reading this book, physicians are certain to gain new insights which will influence their participation in medical affairs.

In spite of the excellent work the author has done in researching his material, I doubt if critics of the AMA will find this book entirely credible. The book was commissioned by the AMA and was written by a staff employee. There is a patronizing tone to the book which may suggest to the critical reader that the author is not entirely objective in discussing the leadership role of the AMA and in the evaluation of individual personalities who have been in positions of leadership within the organization. As depicted, there are clearly good guys and bad guys, and the good guys in this book have generally been those who prevailed. My guess is that some of the losers and some of those who espoused losing causes might have different views of what was right and what was wrong at the time the events occurred.

Experience would indicate to me that most physicians pass judgement upon the AMA on the basis of anecdotal experience and limited knowledge. The most important value of this book, it seems to me, is that it provides, in a very readable form, an opportunity for individuals to understand the organizational structure and policies of the AMA in light of its historical development. There can be no doubt that the AMA is, and has been, a major force in medical affairs. The decision to be involved or not to be involved is a major one for each individual practicing physician. By reading this book, both supporters and critics of the AMA may find basis for their views, but each group will benefit by acquiring a more complete understanding of such issues as standards of education and licensure, medical manpower, third party reimbursement for medical services, health care costs, "town-gown" conflicts, national health programs, competition in medical practice, peer review and many others. In addition, the principal actors in all these dramas become real, live people and not just names which are vaguely remembered.

Having begun the reading of this book, the physician with an interest in the politics of medical practice will find it difficult to put it down.

W. LAMAR WEEMS, M.D.  
Jackson, MS

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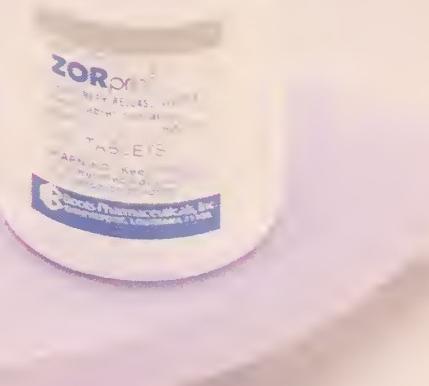
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*See brief summary of prescribing  
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It is contraindicated in all children with fever accompanied by dehydration. ■ **WARNINGS** ZORprin<sup>®</sup> should be used with caution when anticoagulants are prescribed concurrently since aspirin may depress the concentration of prothrombin in plasma and increase bleeding time. Large doses of salicylates may have hypoglycemic action and enhance the effect of the oral hypoglycemics; concomitant use therefore is not recommended. However, if such use is necessary dosage of the hypoglycemic agent must be reduced. The hypoglycemic action of the salicylates may also necessitate adjustment of the insulin requirements of diabetics. While salicylates in large doses have a uncoupling effect, smaller amounts may reduce the uncoupling effect of uncoupling agents. ■ **USE IN PREGNANCY** Aspirin can cause fetal harm when administered to pregnant women. Aspirin interferes with maternal and infant blood clotting and may lengthen the duration of pregnancy and parturition. Aspirin has produced teratogenic effects and increases the incidence of stillbirths and neonatal deaths in animals. If this drug is used during pregnancy or if the patient becomes pregnant while taking this drug, the patient should be apprised of the potential hazard to the fetus. Aspirin should not be taken during the last 3 months of pregnancy. ■ **PRECAUTIONS** Appropriate precautions should be taken in prescribing ZORprin<sup>®</sup> for patients who are known to be sensitive to aspirin or salicylates. Particular care should be used when prescribing this medication for patients with erosive gastritis, peptic ulcer, mild diabetes or gout. As with all salicylate drugs, caution should be exercised in prescribing ZORprin<sup>®</sup> for those patients with bleeding tendencies or those on anticoagulant drugs. Large doses of salicylates should be avoided in patients with clear evidence of carditis in order to avoid exacerbation of disease or adrenal insufficiency; patients who have been on prolonged corticosteroid therapy should have their therapy tapered slowly rather than discontinued abruptly when ZORprin<sup>®</sup> is used. Aspirin is made a part of the treatment program. Patients receiving large doses of aspirin and/or prolonged therapy may develop mild salicylate intoxication (salicylism) that may be reversed by reduction in dosage. Salicylates can produce changes in thyroid function tests. Salicylates should be used with caution in patients with severe hepatic damage, preexisting hypoprothrombinemia, Vitamin K deficiency and in those undergoing surgery. Since aspirin release from ZORprin<sup>®</sup> is pH dependent, it may change in those conditions where the gastric pH has been increased via antacids, gastric secretion inhibitors or surgical procedures. ■ **ADVERSE REACTIONS** **Hematologic** Aspirin interferes with blood clotting. Patients with a history of blood coagulation defects or receiving anti-coagulant drugs or with severe anemia should avoid ZORprin<sup>®</sup>. Aspirin used chronically may cause a persistent iron deficiency anemia. ■ **Gastrointestinal** Aspirin may potentiate peptic ulcer and cause stomach distress or heartburn. Aspirin can cause an increase in occult bleeding and in some patients massive gastrointestinal bleeding. However, the greatest release of active drug from ZORprin<sup>®</sup> is designed to occur in the small intestine over a period of time. This has resulted in less symptomatic gastrointestinal side effects. ■ **Allergic** Allergic and anaphylactic reactions have been noted when hypersensitive individuals have taken aspirin. The most common allergic reaction to aspirin is the induction of bronchospasm with asthma-like symptoms. Other reactions are hives, rash, angioedema, as well as rhinitis and nasal polyps. Fatal anaphylactic shock, while not common, has been reported. ■ **Central Nervous System** Taken in overdoses, aspirin provides stimulation which may be manifested by tinnitus. Following initial stimulation depression of the central nervous system may be noted. ■ **Renal** Aspirin may rarely cause an increase in the severity of chronic kidney disease. ■ **Hepatic** High doses of aspirin have been reported to produce reversible hepatic dysfunction. ■ **OVERDOSE** Overdosage, if it occurs, would produce the usual symptoms of salicylism: tinnitus, vertigo, headache, confusion, drowsiness, sweating, hyperventilation, vomiting or diarrhea. Treatment for mild intoxication, emptying the stomach with an emetic or gastric lavage with 5% sodium bicarbonate. Individuals suffering from severe intoxication should, in addition, have forced diuresis by intravenous infusions of saline and sodium bicarbonate or sodium lactate, dextrose solution. 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**Lest We Forget**

Six weeks ago a friend stopped me in the stairwell of a local hospital. His story was a familiar one.

He had recently been at odds with the hospital administration over some relatively minor incident and had sought out the chief of staff of that particular hospital to discuss the problem. My friend naturally felt the chief of staff, who had been elected as the medical staff representative, would see my friend's side of the story in a favorable light. He was a bit dismayed to find the chief of staff take an adversarial position and rather rigorously defend the hospital's position. Thinking that the chief of staff was his representative, my friend quickly discovered that the chief of staff was, in reality, the hospital's representative. My friend wondered why he had voted for this doctor to be his representative — he also wondered when and why Dr. Chief of Staff changed from representing the medical staff to representing the hospital.

How often have we seen this happen? How often have we ourselves done the same as Dr. Chief of Staff? We see our politicians get elected as representatives of the people and they seem to forget who elected them as they travel to Jackson or Washington, D.C. However, we don't expect this to happen to good ole Dr. X when he is elected chief of staff. It does happen though.

In some areas of the country administrative boards of hospitals select a chief of staff and this is a paid position. This chief of staff is paid to be a representative of the hospital and to look out for the hospital's interest. The medical staff elects a president of the medical staff who serves as the representative of the medical staff.

Perhaps we should consider this in our community. As things stand now, we elect our chief of staff, but all too often he becomes a representative of the hospital. He goes to meetings which are presided over by the hospital administrator (and don't forget that the man in control of the podium is the man in control of the meeting), he sits down to a nice steak (not the same as the one in the hospital cafeteria), and enjoys a very pleasant, amiable meal. He listens to the hospital administrator discuss the woes of the hospital and all its problems. A few suggestions are made as to how things can be improved if we can just get the doctors to cooperate. Satiated, weary, grateful for the nice meal, and late for his afternoon

appointments, he agrees to go along with the suggestions of the hospital administrator — especially when everyone else (director of nurses, medical librarian, hospital business manager, etc.) seems to agree with the hospital administrator that it is a good policy. It may just be a minor item but this doctor's responsibility is to use all his resources to accomplish the desires of the medical staff. The medical staff elected him as their representative and he was not elected to represent the hospital. How soon we forget from whence we came.

In the near future, and in fact right now, we will be in direct competition with the hospitals for the available medical dollars. We want to be fair in dealing with the others, but we want to be represented (by our elected representatives). Our forefathers fought a war over "taxation without representation." Can't we now step forward and remind our wayward chiefs of staff that we elected them and we want them to represent us — the medical staff. I doubt we really need to say much. Our elected representatives just need to be occasionally reminded of who elected them and whom they are supposed to serve. If your chief of staff is not representing you and has lost his way — wherever it may be — let him know how you feel. Has a hospital chief of staff ever been impeached?

J. ELMER NIX, M.D.  
Jackson, MS

**Medico-Legal Brief****Damage Limit Upheld  
In Medical Malpractice**

The California Supreme Court has upheld the last remaining sections challenged as unconstitutional in the Medical Injury Compensation Reform Act of 1976, approving 4 to 3 a \$250,000 limit on damages for pain and suffering and allowing deduction of a victim's insurance payments from damages awarded in court.

Passed when skyrocketing medical malpractice insurance premiums threatened to put many doctors out of practice, the controversial law was designed to limit the high cost of malpractice suits for medical practitioners and their insurers.

Ruling in three related cases in 1984 and earlier this year, the high court had upheld sections of the law that provide for periodic rather than lump-sum

(Continued on page 150)

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## MEDICAL ORGANIZATION

### MSMA Auxiliary Recognized For MEDVOTE Success



*Mrs. Ted Blanton, president of the MSMA Auxiliary, accepts an award from Dr. John Koury, chairman of the AMA Board of Trustees. The award recognized the MSMA Auxiliary's success in the 1984 MEDVOTE campaign. Forty-two state auxiliaries participated in the project, and four received recognition at the AMA National Leadership Conference for identifying and registering the largest number of unregistered voters among doctors and their families.*

### Three Join Faculty At UMC School of Medicine

Three have been named to the School of Medicine faculty at the University of Mississippi Medical Center.

The appointments were announced by Dr. Norman C. Nelson, vice chancellor for health affairs and medical school dean, following approval of the Board of Trustees of Institutions of Higher Learning.

Appointed are Dr. Thomas L. Bennett, assistant professor of pathology; Dr. M. Victoria Gerken, assistant professor of surgery; and Dr. Robert S. Tarver, instructor in surgery.

Dr. Bennett received the B.A. from Drake University in Des Moines, Iowa, in 1974 and earned the M.D. at the University of Iowa College of Medicine in 1978. He completed residencies at the University

Hospital in Cleveland and at the University of South Dakota and Veterans Administration Medical Center in Vermillion, South Dakota. He took further forensic training at the office of the Chief Medical Examiner of North Carolina in 1982. He has been an instructor at the University of Iowa College of Medicine in Iowa City, Cuyahoga Community College in Cleveland, and Lakeland Community College in Sheboygan, Wisconsin. He was director of laboratory medicine and pathology at Charter Community Hospital in Des Moines, and Iowa State Medical Examiner since 1983 prior to coming to the Medical Center.

Dr. Gerken earned the B.S. in 1974 at Creighton University and the M.D. in 1978 at the University's School of Medicine. She did her residency at the University of Mississippi Medical Center and was a fellow in surgery at the Medical Center before her faculty appointment.

Dr. Tarver received the B.S. in 1973 from the University of Tennessee, and did postgraduate study at Memphis State University. He earned the M.D. at the University of Mississippi Medical Center in 1978, and completed his residency at the Medical Center in 1984.

### 12th Annual Surgical Forum Held in Jackson



*Dr. Jerry D. Moore of Dunedin, Florida, left, and Dr. John F. Lucas of Greenwood, right, talk with Dr. Lamar Weems of Jackson during the twelfth annual Surgical Forum in Jackson sponsored by the University of Mississippi Medical Center Department of Surgery and the Division of Continuing Health Professional Education. They were among the 225 physicians from across the nation who attended the postgraduate course. Dr. Weems, chief of the urology division at the Medical Center, was one of the forum speakers.*



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## NEW MEMBERS

APPLEWHITE, GEORGE A., McComb. Born McComb, Nov. 3, 1950; M.D., University of Mississippi School of Medicine, Jackson, 1975; one year internship, Richland Memorial Hospital, Columbia, SC; preventive medicine residency, Tulane Medical Center, New Orleans, one year; elected by South Central Medical Society.

BASS, R. EUGENE, Pascagoula. Born Picayune, Dec. 22, 1947; M.D., University of Mississippi School of Medicine, Jackson, 1979; one year internship, Baptist Memorial Hospital, Memphis; orthopedic residency, Georgia Baptist Hospital and Scottish Rite Hospital, Atlanta, 1980-83; sports medicine fellowship, Hughston Orthopedic Clinic, Columbus, GA, one year; elected by Singing River Medical Society.

BOOTHE, JAMES C., McComb. Born Atlanta, April 9, 1946; M.D., Louisiana State University School of Medicine, New Orleans, 1972; interned and diagnostic radiology residency, Alabama Hospital and Clinics, Birmingham 1972-76; elected by South Central Medical Society.

BRADBURN, DENNIS O., Hickory. Born Columbia, TN, Jan. 4, 1954; M.D., University of Tennessee Center for the Health Sciences, Memphis, 1978; one year internship, same, elected by East Mississippi Medical Society.

BROOKS, GEORGE B., D.O., Gulfport. Born Baldwyn, MS, Nov. 16, 1955; D.O., Kansas City College of Osteopathic Medicine, Kansas City, MO 1981; interned Naval Regional Medical Center, San Diego, CA, one year; elected by Coast Counties Medical Society.

DAS, SUMAN K., Jackson. Born Calcutta, India, May 6, 1944; M.D., R. G. Kar Medical College and Hospital, Calcutta, India, 1966; interned, same, one year and general surgery residency, 1970-73; plastic surgery residency, University Medical Center, Jackson, MS, 1982-84; elected by Central Medical Society.

GUNTER, HENRY THOMAS, Columbus. Born Columbus, MS, Feb. 3, 1935; M.D., Tulane University School of Medicine, New Orleans, 1959; interned Grady Memorial Hospital, Atlanta, one year; rotating three-year ob-gyn residency, Atlanta, Honolulu, San Francisco; elected by Prairie Medical Society.

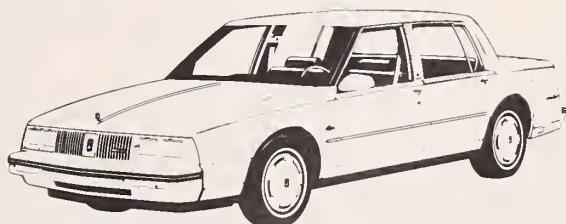
HASSELL, JAMES ALLEN, Newton. Born Decatur, TX, Aug. 24, 1943; M.D., University of Oklahoma College of Medicine, Oklahoma City, OK, 1971; interned Memorial Medical Center, Corpus Christi, TX, one year; elected by East Mississippi Medical Society.

HILBORN, RICHARD MAJOR, Vicksburg. Born Shreveport, LA, April 29, 1953; M.D., Vanderbilt University School of Medicine, Nashville, 1979; interned Tulane and Charity Hospital, New Orleans, one year; orthopedic surgery, University of Virginia Hospital, Charlottesville, 1980-84; elected by West Mississippi Medical Society.

IYENGAR, RAMA R., Meadville. Born India, Oct. 9, 1941; M.D., Kasturba Medical College, Mysore, India 1964; interned Barberton Citizens Hospital, Barberton, OH; general surgery residency, Methodist Hospital of Brooklyn, Brooklyn, NY, 1974-78; elected by South Central Medical Society.

KOLB, JAMES C., Jackson. Born Dublin, GA, May 3, 1954; M.D., University of Mississippi School of Medicine, Jackson, 1981; interned and one year

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medicine residency, University of Texas Health Science Center, San Antonio; one year medicine residency, University Medical Center, Jackson, MS 1983-84; elected by Central Medical Society.

MORANO, JAMES U., Jackson. Born Jackson, MS, June 16, 1954; M.D., University of Mississippi School of Medicine, Jackson, 1978; diagnostic radiology residency University Medical Center, Jackson, 1978-82; elected by Central Medical Society.

PAKRON, FREDERICK J., Biloxi. Born New Orleans, July 4, 1952; M.D., Louisiana State University School of Medicine, Shreveport, 1978; interned and medicine residency, Ochsner Foundation Hospital, New Orleans, 1978-81; pulmonary fellowship, University of California, Irvine, 1981-83; elected by Coast Counties Medical Society.

PATEL, BHARTI R., Jackson. Born Seguva, India, March 19, 1944; M.D., Medical School, Faculty of Medicine, University of Baroda, India, 1967; pathology residency, Elyria Memorial Hospital, Elyria, OH, 1973-75; nuclear medicine fellowship, Mallinckrodt Institute, Washington University, St. Louis, MO 1977-79; elected by Central Medical Society.

## PHYSICIANS NEEDED

Mississippi Disability Determination Services has need of physicians to serve as consultants to medical examiners. This is a part-time position. The basic requirements are: 1) an unencumbered license to practice medicine in Mississippi and 2) facility in the English language. Those interested should call Deborah Warriner, Medical Staff Coordinator. WATS-1-800-962-2230, Extension 2153; Jackson, 922-6811, Ext. 2153.

Physicians (especially specialists such as ophthalmologists, pediatricians, orthopedists, neurologists, etc.) interested in performing consultative evaluations (according to Social Security guidelines) should contact one of the following Medical Relations Officers: Henry Klar (Ext. 2276) or Martina Mayfield (Ext. 2227).

The DDS now has a program available for medical society meetings and hospital staff meetings. The purpose of this program is to explain how the disability determination process works, its historical background, its basis in legality and its documentation requirements. Any group interested in this presentation should contact John S. Barr, M.D., Ext. 2277.

PAVLOV, PAUL M., Biloxi. Born Biloxi, Jan. 29, 1955; M.D., University of Mississippi School of Medicine, Jackson, 1981; interned and family practice residency, University of South Alabama, Mobile, 1981-84; elected by Coast Counties Medical Society.

PHILLIPS, NANCY O., Pascagoula. Born Jackson, MS, Sept. 2, 1955; M.D., University of Mississippi School of Medicine, Jackson, 1980; interned and ob-gyn residency, University Medical Center, Jackson, 1980-84; elected by Singing River Medical Society.

POOLE, CALVIN P., JR., Vicksburg. Born Winnboro, LA, June 30, 1955; M.D., University of Mississippi School of Medicine, Jackson, 1980; interned and ob-gyn residency, University Medical Center, Jackson, 1981-84; elected by West Mississippi Medical Society.

SCHMIDT, ROBERT J., Biloxi. Born New Orleans, Aug. 7, 1937; M.D., Tulane University School of Medicine, New Orleans, 1962; interned and ob-gyn residency, Charity Hospital, New Orleans, 1962-66; elected by Coast Counties Medical Society.

SMITH, RICHARD H., Biloxi. Born Hattiesburg, Oct. 28, 1955; M.D., University of Mississippi School of Medicine, Jackson, 1981; interned and family practice residency, University of South Alabama, Mobile, 1981-84; elected by Coast Counties Medical Society.

SULLIVAN, BARRY S., Cleveland. Born Baton Rouge, June 19, 1950; M.D., University of Mississippi School of Medicine, Jackson, 1978; interned and medicine residency, University Medical Center, Jackson, 1978-82; elected by Delta Medical Society.

TINSLEY, PAUL PLEZ, JR., Meridian. Born Meridian, Feb. 25, 1952; M.D., University of Mississippi School of Medicine, Jackson, 1977; interned Albert Chandler Medical Center, Lexington, KY, one year; general surgery residency, University of Kentucky, Lexington, 1978-79; ENT and facial plastic residency, University of Texas, San Antonio, TX, 1979-83; fellowship, head/neck and facial plastic surgery, New York, NY, 1983-84; elected by East Mississippi Medical Society.

WARREN, EDWARD T., Jackson. Born Memphis, Dec. 29, 1951; M.D., University of Mississippi School of Medicine, Jackson, 1976; interned and surgery residency, University Medical Center, Jackson, 1977-82; cardiac surgery residency, Medical University of South Carolina, Charleston, 1982-84; elected by Central Medical Society.

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Please see brief summary of prescribing information on the next page for further details.

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BRIEF SUMMARY (FOR FULL PRESCRIBING INFORMATION SEE PACKAGE CIRCULAR)  
**INDERAL® LA** brand of propranolol hydrochloride (**Long Acting Capsules**)

**DESCRIPTION.** Inderal LA is formulated to provide a sustained release of propranolol hydrochloride. Inderal LA is available as 80 mg, 120 mg, and 160 mg capsules. **CLINICAL PHARMACOLOGY.** Inderal is a nonselective beta-adrenergic receptor blocking agent possessing no other autonomic nervous system activity. It specifically competes with beta-adrenergic receptor stimulating agents for available receptor sites. When access to beta-receptor sites is blocked by Inderal, the chronotropic, inotropic, and vasodilator responses to beta-adrenergic stimulation are decreased proportionately.

Inderal LA Capsules (80, 120, and 160 mg) release propranolol HCl at a controlled and predictable rate. Peak blood levels following dosing with Inderal LA occur at about 6 hours and the apparent plasma half-life is about 10 hours. When measured at steady state over a 24-hour period the areas under the propranolol plasma concentration-time curve (AUCs) for the capsules are approximately 60% to 65% of the AUCs for a comparable divided daily dose of Inderal tablets. The lower AUCs for the capsules are due to greater hepatic metabolism of propranolol resulting from the slower rate of absorption of propranolol. Over a twenty-four (24) hour period, blood levels are fairly constant for about twelve (12) hours then decline exponentially.

Inderal LA should not be considered a simple mg for mg substitute for conventional propranolol and the blood levels achieved do not match (are lower than) those of two to four times daily dosing with the same dose. When changing to Inderal LA from conventional propranolol, a possible need for titration upwards should be considered especially to maintain effectiveness at the end of the dosing interval. In most clinical settings, however, such as hypertension or angina where there is little correlation between plasma levels and clinical effect, Inderal LA has been therapeutically equivalent to the same mg dose of conventional Inderal as assessed by 24-hour effects on blood pressure and on 24-hour exercise responses of heart rate, systolic pressure and rate pressure product. Inderal LA can provide effective beta-blockade for a 24-hour period.

The mechanism of the antihypertensive effect of Inderal has not been established. Among the factors that may be involved in contributing to the antihypertensive action are (1) decreased cardiac output, (2) inhibition of renin release by the kidneys, and (3) diminution of tonic sympathetic nerve outflow from vasomotor centers in the brain. Although total peripheral resistance may increase initially, it readjusts to or below the pretreatment level with chronic use. Effects on plasma volume appear to be minor and somewhat variable. Inderal has been shown to cause a small increase in serum potassium concentration when used in the treatment of hypertensive patients.

In angina pectoris, propranolol generally reduces the oxygen requirement of the heart at any given level of effort by blocking the catecholamine-induced increases in the heart rate, systolic blood pressure, and the velocity and extent of myocardial contraction. Propranolol may increase oxygen requirements by increasing left ventricular fiber length, end diastolic pressure and systolic ejection period. The net physiologic effect of beta-adrenergic blockade is usually advantageous and is manifested during exercise by delayed onset of pain and increased work capacity.

In dosages greater than required for beta-blockade, Inderal also exerts a quinidine-like or anesthetic-like membrane action which affects the cardiac action potential. The significance of the membrane action in the treatment of arrhythmias is uncertain.

The mechanism of the antimigraine effect of propranolol has not been established. Beta-adrenergic receptors have been demonstrated in the pial vessels of the brain.

Beta receptor blockade can be useful in conditions in which, because of pathologic or functional changes, sympathetic activity is detrimental to the patient. But there are also situations in which sympathetic stimulation is vital. For example, in patients with severely damaged hearts, adequate ventricular function is maintained by virtue of sympathetic drive which should be preserved. In the presence of AV block, greater than first degree, beta-blockade may prevent the necessary facilitating effect of sympathetic activity on conduction. Beta-blockade results in bronchial constriction by interfering with adrenergic bronchodilator activity which should be preserved in patients subject to bronchospasm.

Propranolol is not significantly dialyzable.

**INDICATIONS AND USAGE.** **Hypertension:** Inderal LA is indicated in the management of hypertension; it may be used alone or used in combination with other antihypertensive agents, particularly a thiazide diuretic. Inderal LA is not indicated in the management of hypertensive emergencies.

**Angina Pectoris Due to Coronary Atherosclerosis:** Inderal LA is indicated for the long-term management of patients with angina pectoris.

**Migraines:** Inderal LA is indicated for the prophylaxis of common migraine headache. The efficacy of propranolol in the treatment of a migraine attack that has started has not been established and propranolol is not indicated for such use.

**Hypertrophic Subaortic Stenosis:** Inderal LA is useful in the management of hypertrophic subaortic stenosis, especially for treatment of exertional or other stress-induced angina, palpitations, and syncope. Inderal LA also improves exercise performance. The effectiveness of propranolol hydrochloride in this disease appears to be due to a reduction of the elevated outflow pressure gradient which is exacerbated by beta-receptor stimulation. Clinical improvement may be temporary.

**CONTRAINDICATIONS.** Inderal is contraindicated in 1) cardiogenic shock, 2) sinus bradycardia and greater than first degree block, 3) bronchial asthma, 4) congestive heart failure (see **WARNINGS**) unless the failure is secondary to a tachyarrhythmia treatable with Inderal.

**WARNINGS.** **CARDIAC FAILURE.** Sympathetic stimulation may be a vital component supporting circulatory function in patients with congestive heart failure, and its inhibition by beta-blockade may precipitate more severe failure. Although beta-blockers should be avoided in overt congestive heart failure, if necessary, they can be used with close follow-up in patients with a history of failure who are well compensated and are receiving digitalis and diuretics. Beta-adrenergic blocking agents do not abolish the inotropic action of digitalis on heart muscle.

In patients without a history of heart failure, continued use of beta-blockers can in some cases, lead to cardiac failure. Therefore, at the first sign or symptom of heart failure, the patient should be digitized and/or treated with diuretics, and the response observed closely, or Inderal should be discontinued (gradually, if possible).

**IN PATIENTS WITH ANGINA PECTORIS.** There have been reports of exacerbation of angina and, in some cases, myocardial infarction, following abrupt discontinuation of Inderal therapy. Therefore, when discontinuation of Inderal is planned the dosage should be gradually reduced over at least a few weeks, and the patient should be cautioned against interruption or cessation of therapy without the physician's advice. If Inderal therapy is interrupted and exacerbation of angina occurs, it usually is advisable to reinstitute Inderal therapy and take other measures appropriate for the management of unstable angina pectoris. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease who are given propranolol for other indications.

**Nonallergic Bronchospasm (e.g., chronic bronchitis, emphysema)—** PATIENTS WITH BRONCHOSPASTIC DISEASES SHOULD NOT RECEIVE BETA BLOCKERS. Inderal should be administered with caution since it may block bronchial dilation produced by endogenous and exogenous catecholamine stimulation of beta receptors.

**MAJOR SURGERY.** The necessity or desirability of withdrawal of beta-blocking therapy prior to major surgery is controversial. It should be noted, however, that the impaired ability of the heart to respond to reflex adrenergic stimuli may augment the risks of general anesthesia and surgical procedures.

INDERAL (propranolol HCl), like other beta-blockers, is a competitive inhibitor of beta-receptor agonists and its effects can be reversed by administration of such agents, e.g. dobutamine or isoproterenol. However, such patients may be subject to protracted severe hypotension. Difficulty in starting and maintaining the heartbeat has also been reported with beta-blockers.

**DIABETES AND HYPOGLYCEMIA.** Beta-adrenergic blockade may prevent the appearance of certain premonitory signs and symptoms (pulse rate and pressure changes) of acute hypoglycemia in labile insulin-dependent diabetes. In these patients, it may be more difficult to adjust the dosage of insulin.

**THYROTOXICOSIS.** Beta-blockade may mask certain clinical signs of hyperthyroidism. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. Propranolol does not distort thyroid function tests.

**IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME.** Several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case this resulted after an initial dose of 5 mg propranolol.

**PRECAUTIONS.** General. Propranolol should be used with caution in patients with impaired hepatic or renal function. Inderal (propranolol HCl) is not indicated for the treatment of hypertensive emergencies.

Beta-adrenergic blockade can cause reduction of intraocular pressure. Patients should be told that Inderal may interfere with the glaucoma screening test. Withdrawal may lead to a return of increased intraocular pressure.

**Clinical Laboratory Tests.** Elevated blood urea levels in patients with severe heart disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase.

**DRUG INTERACTIONS.** Patients receiving catecholamine-depleting drugs such as reserpine should be closely observed if Inderal is administered. The added catecholamine-blocking action may produce an excessive reduction of resting sympathetic nervous activity which may result in hypotension, marked bradycardia, vertigo, syncopal attacks, or orthostatic hypotension.

**Carcinogenesis, Mutagenesis, Impairment of Fertility.** Long-term studies in animals have been conducted to evaluate toxic effects and carcinogenic potential. In 18-month studies in both rats and mice, employing doses up to 150 mg/kg/day, there was no evidence of significant drug-induced toxicity. There were no drug-related tumorigenic effects at any of the dosage levels. Reproductive studies in animals did not show any impairment of fertility that was attributable to the drug.

**Pregnancy.** Pregnancy Category C. Inderal has been shown to be embryotoxic in animal studies at doses about 10 times greater than the maximum recommended human dose.

There are no adequate and well-controlled studies in pregnant women. Inderal should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

**Nursing Mothers.** Inderal is excreted in human milk. Caution should be exercised when Inderal is administered to a nursing woman.

**Pediatric Use.** Safety and effectiveness in children have not been established.

**ADVERSE REACTIONS.** Most adverse effects have been mild and transient and have rarely required the withdrawal of therapy.

**Cardiovascular.** Bradycardia, congestive heart failure, intensification of AV block, hypertension, paresthesia of hands, thrombocytopenic purpura, arterial insufficiency, usually of the Raynaud type.

**Central Nervous System.** Lightheadedness, mental depression manifested by insomnia, lassitude, weakness, fatigue, reversible mental depression progressing to catatonia, visual disturbances, hallucinations; an acute reversible syndrome characterized by disorientation for time and place, short-term memory loss, emotional lability, slightly clouded sensorium, and decreased performance on neuropsychometrics.

**Gastrointestinal.** Nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic colitis.

**Allergic pharyngitis and agranulocytosis, erythematous rash, fever combined with aching and sore throat, laryngospasm and respiratory distress.**

**Respiratory bronchospasm.**

**Hematologic.** Agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura.

**Auto-Immune.** In extremely rare instances, systemic lupus erythematosus has been reported.

**Miscellaneous.** Alopecia, LE-like reactions, psoriasisiform rashes, dry eyes, male impotence, and Peyronie's disease have been reported rarely. Oculomucocutaneous reactions involving the skin, serous membranes and conjunctivae reported for a beta-blocker (practolol) have not been associated with propranolol.

**DOSAGE AND ADMINISTRATION.** Inderal LA provides propranolol hydrochloride in a sustained-release capsule for administration once daily. If patients are switched from Inderal tablets to Inderal LA capsules, care should be taken to assure that the desired therapeutic effect is maintained. Inderal LA should not be considered a simple mg for mg substitute for Inderal. Inderal LA has different kinetics and produces lower blood levels. Retitration may be necessary especially to maintain effectiveness at the end of the 24-hour dosing interval.

**HYPERTENSION—Dosage must be individualized.** The usual initial dosage is 80 mg Inderal LA once daily whether used alone or added to a diuretic. The dosage may be increased to 120 mg once daily or higher until adequate blood pressure control is achieved. The usual maintenance dosage is 120 to 160 mg once daily. In some instances a dosage of 640 mg may be required. The time needed for full hypertensive response to a given dosage variable and may range from a few days to several weeks.

**ANGINA PECTORIS—Dosage must be individualized.** Starting with 80 mg Inderal LA once daily, dosage should be gradually increased at three to seven day intervals until optimum response is obtained. Although individual patients may respond at any dosage level, the average optimum dosage appears to be 160 mg once daily. In angina pectoris, the value and safety of dosage exceeding 320 mg per day have not been established.

If treatment is to be discontinued, reduce dosage gradually over a period of a few weeks (see **WARNINGS**).

**MIGRAINE—Dosage must be individualized.** The initial oral dose is 80 mg Inderal LA once daily. The usual effective dose range is 160-240 mg once daily. The dosage may be increased gradually to achieve optimum migraine prophylaxis. If a satisfactory response is not obtained within four to six weeks after reaching the maximum dose, Inderal LA therapy should be discontinued. It may be advisable to withdraw the drug gradually over a period of several weeks.

**HYPERTROPHIC SUBAORTIC STENOSIS—80-160 mg Inderal LA once daily.**

**PEDIATRIC DOSAGE—** At this time the data on the use of the drug in this age group are too limited to permit adequate directions for use.

**REFERENCES**

1. Holland OB, Nixon JV, Kuhnert L: Diuretic-induced ventricular ectopic activity. *Am J Med* 1981;70:762-768.
2. Holme I, Helgeland A, Hjermann I, et al: Treatment of mild hypertension with diuretics. The importance of ECG abnormalities in the Oslo study and in MRFIT. *JAMA* 1984;251:1298-1299.

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## PERSONALS

JAMES ACHORD of UMC attended a meeting of the board of directors of the American College of Gastroenterology in Miami Beach and spoke at a meeting of the American College of Physicians in New Orleans.

MARILYN AIELLO of Marks has been recertified by the American Academy of Family Physicians.

HORACE H. BAGGETT has associated with JOSEPH B. McMILLON, KATHERINE S. ALDRIDGE, JAMES R. HOUSE, JR., WILLIAM B. STRONG, JR., BOBBY D. SMITH, ROBERT C. STRONG, and CANDACE E. KELLER for the practice of anesthesiology at 2601 Mamie Street in Hattiesburg.

JAMES C. BARNETT of Jackson has been inducted into fellowship in the American Academy of Orthopaedic Surgeons.

GENE R. BARRETT of Jackson has been inducted into fellowship in the American Academy of Orthopaedic Surgeons.

G. WILLIAM BATES of UMC presented a paper at a meeting of the University of North Carolina Alumni Association in Charlotte, and at the joint meeting of the Society of Gynecological Surgeons and the Association of Professors of Obstetrics and Gynecology in New Orleans.

WILLIAM A. CAUSEY of Jackson has assumed office as a governor of the American College of Physicians.

RICHARD A. CONN of Hattiesburg presented a paper at the American Academy of Orthopaedic Surgery in Las Vegas.

DAVID CRAWFORD of UMC was guest speaker at the Tumor Board Conference in Albuquerque, New Mexico, in March.

ROBERT CURRIER of UMC spoke at a meeting of the National Ataxia Convention in Metairie, Louisiana.

J. ROBERT DAVIS of Corinth has been inducted into fellowship in the American College of Gastroenterology.

R. DURLEY DEAN has associated with EDSHEL F. STEWART and MARIA I. GONZALES of McComb for the practice of obstetrics and gynecology at 212 Marion Avenue.

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## PERSONALS / Continued

QUINTON H. DICKERSON of Jackson represented the American Heart Association in Mississippi at the Southern Region Heart Committee meeting.

ABRAHAM GELPERIN of Biloxi presented a seminar at South Alabama Medical School in Mobile.

SERGIO G. GONZALEZ of Laurel was recently certified by the American Board of Quality Assurance and Utilization Review Physicians.

JAMES HARDY of UMC attended meetings of the International Society of Surgery in Basle, Switzerland, in March.

JESSE ROBERT HIGHTOWER of Itta Bena recently was honored by the community with "Dr. Jesse Robert Hightower Day."

DAVID R. HUBBS has associated with Southwest Clinic for Women, 300 Rawls Drive in McComb, for the practice of obstetrics and gynecology.

JOSEPH HURST of Booneville has been elected chief of the medical staff at Baptist Memorial Hospital in Booneville. Other officers are WILLIAM PRESTON, vice-chairman, and JOSEPH PUTNAM, secretary.

JOHN JACKSON of UMC attended a recent meeting in Atlanta of the advisory committee of the Southeastern Regional Genetics Group.

PATRICK LEHAN of UMC attended the 34th annual American College of Cardiology in Anaheim, California, as governor for Mississippi.

JENG YIH LIN announces the opening of his office for the practice of obstetrics and gynecology at 238 Kaki Street in Iuka.

EDWARD LOWICKI of Jackson was speaker at the March 17 meeting of the Ostomy Association of Jackson.

JAMES MAHER of UMC lectured at an American College of Surgeons Cancer Management course in San Antonio, Texas, in March.

FRANCIS MORRISON of UMC was a site visitor to Indiana University in Indianapolis recently.

NORMAN NELSON of UMC delivered the keynote address at the 1985 meeting of the Mississippi Academy of Sciences in Jackson and was a panelist at the Southeastern Surgical Congress in Washington, DC, in March.

WILLIAM NICHOLAS spoke on diabetes in Shreveport and Bossier City, Louisiana, and at an education seminar in Winona and Meridian.

K. S. POTNIS announces the opening of Vicksburg Ob-Gyn Clinic, 1011 Mission 66, for the practice of obstetrics and gynecology.

EDWIN POWELL has associated with Walley's Clinic, P.A., in Waynesboro, for the practice of family medicine.

MICHEL RIVLIN of UMC presented a paper at the Pan American Conference on Fertility and Sterility at Ixtapa, Mexico.

JOE M. ROSS, JR. of Vicksburg presented a case statement for basic cardiovascular research at a news conference at the Heart Association state office in March.

VICTOR SALTER of UMC presented his research findings at the Rebreathing Meeting in Stratton, Vermont.

THOMAS E. STEVENS of Jackson has been appointed as St. Dominic-Jackson Memorial Hospital's first medical director.

DAVIS THOMAS of UMC presented a paper on Physician Cost Awareness under DRG Reimbursement at a meeting in New Orleans of the Society for Research and Education in Primary Care, Internal Medicine.

## MEDICO-LEGAL BRIEF

(Continued from page 143)

payments of awards over \$50,000, limit what third parties can collect, and limit attorneys' fees according to a sliding scale of 40% for the first \$50,000 down to 10% of any damage award over \$200,000.

In a stinging 23-page dissent to the 55-page majority opinion, California Chief Justice Rose Elizabeth Bird termed the law "fundamentally unjust" and chided her colleagues for "singling out the most severely injured victims of medical negligence to pay for special relief to health care providers and their insurers."

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## Physicians Available

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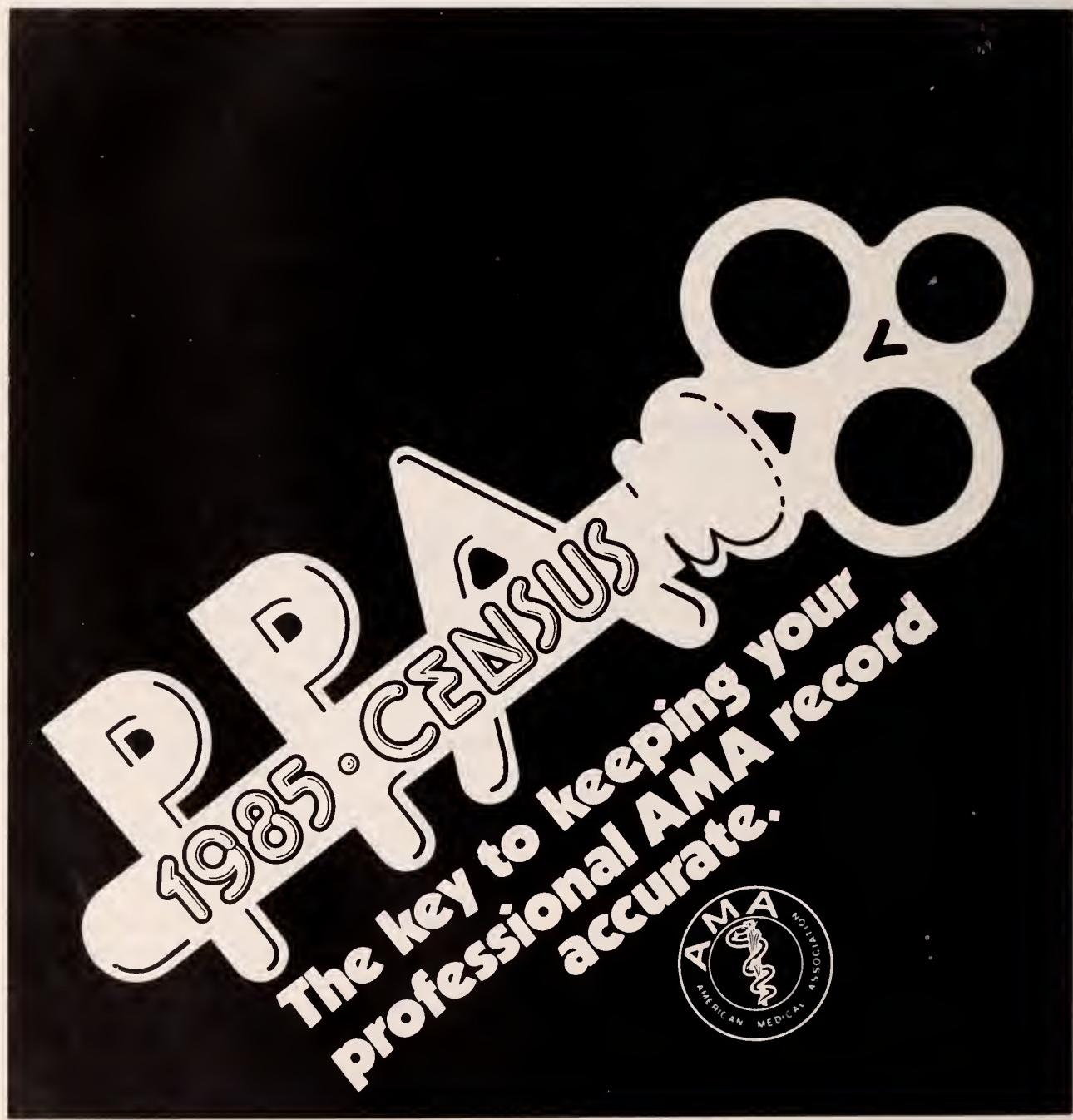
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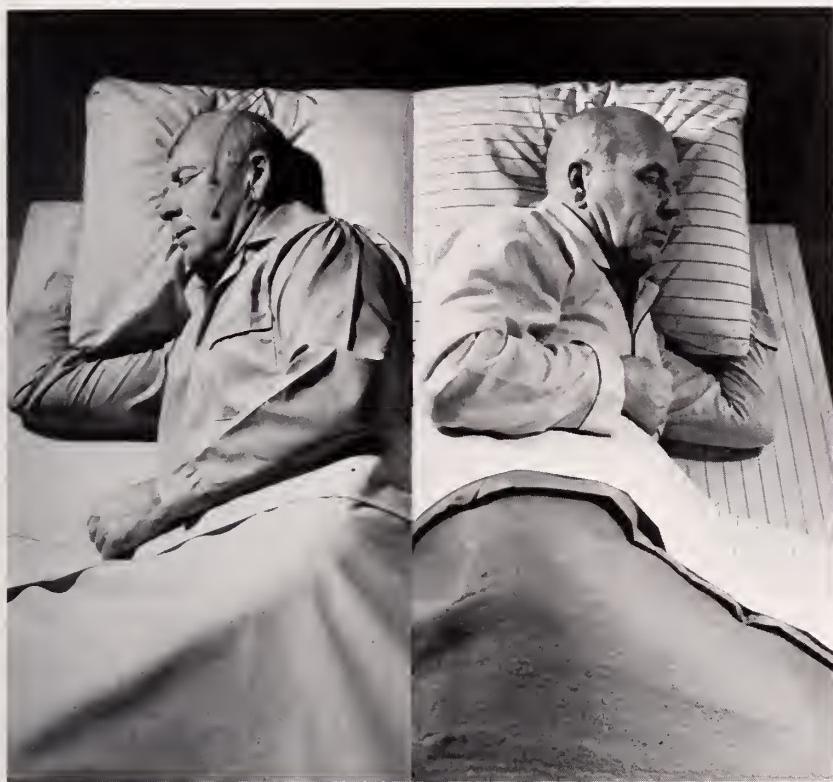
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**precautions:** In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

**adverse reactions:** Dizziness, drowsiness, light-headedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, e.g., excitement, stimulation and hyperactivity.

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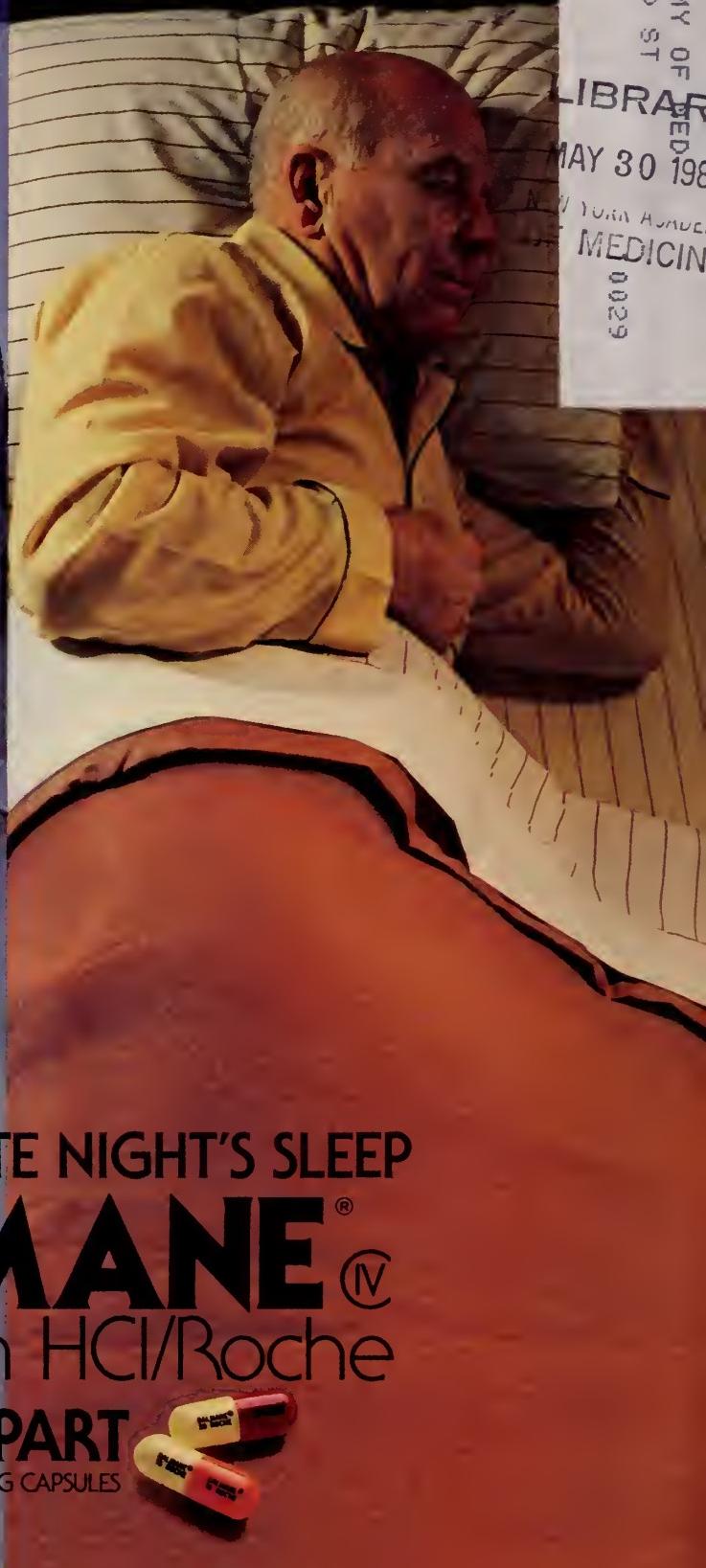
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June 1985

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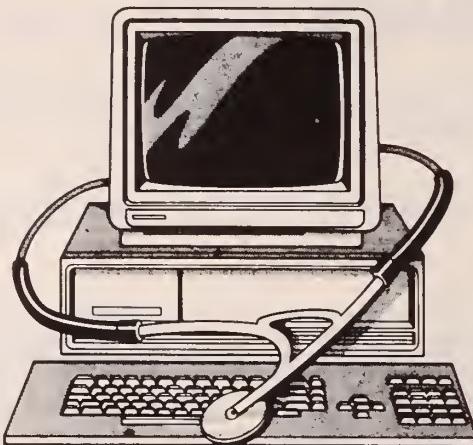
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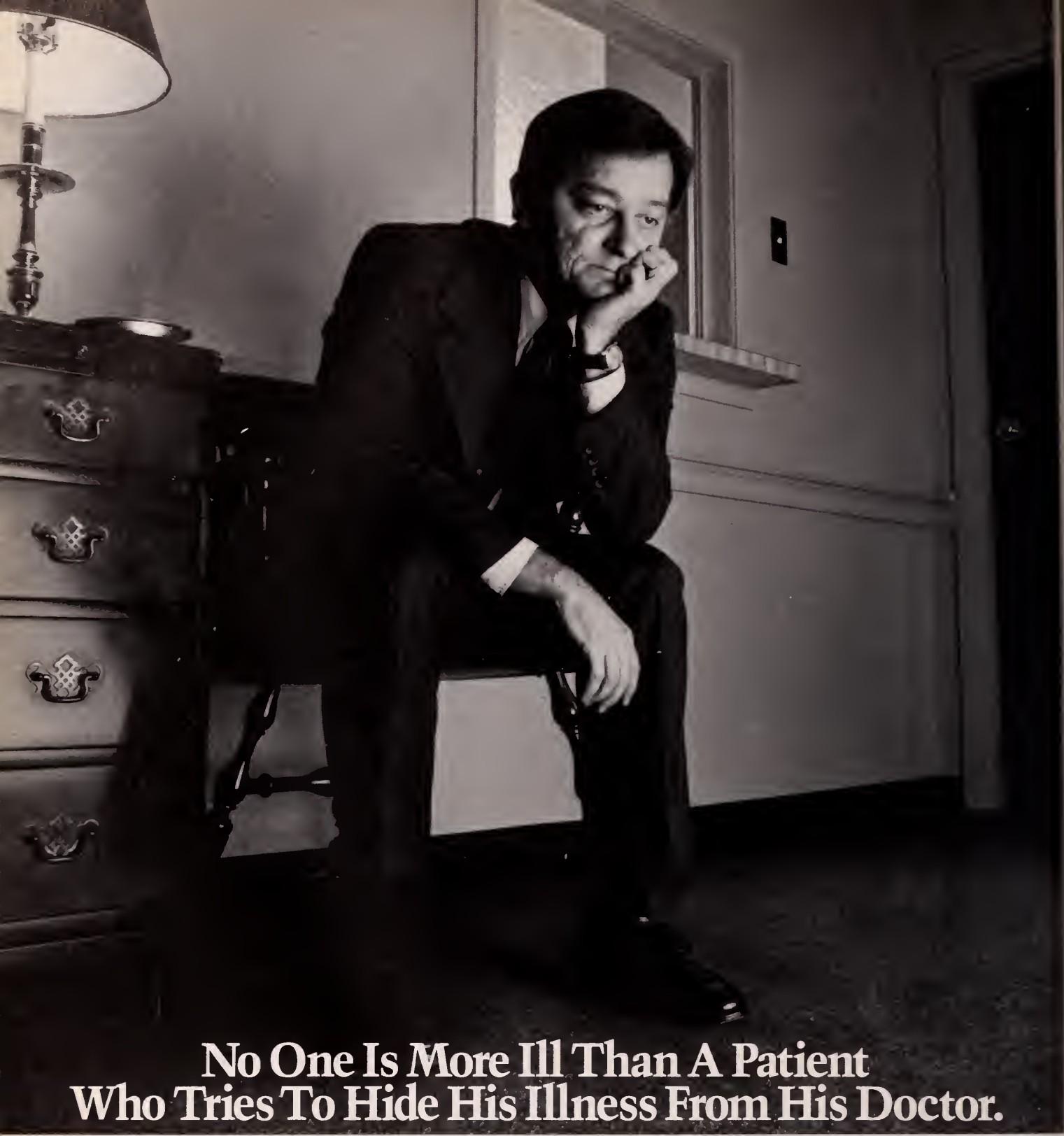
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# NEWSLETTER

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June 1985

Dear Doctor:

Six million people represent the potential audience to view a new film profiling physicians in their role as advocates for their individual patients. The film, prepared by the AMA as part of a campaign to enhance the public's perception of the medical profession, will premier at the AMA's Annual Meeting this month in Chicago. Scheduled for distribution to component societies, theaters, and cable and satellite networks, the film features narration by actor Elliot Gould, star of CBS' "E/R," who donated his services.

The film is part of a \$1.1 million, five-point plan that also includes survey research, television commercials, public health drives, and an annual national communications workshop. The public information campaign was mandated in December by a vote of the AMA House of Delegates, approving a report and resolution calling for the development of activities to increase the public's awareness of physicians as patient advocates within the changing environment of medicine.

Interest in joining an HMO has increased significantly in the last four years, according to a Louis Harris survey released last month. In 1980 researchers found that 38% of eligible non-members were interested in joining an HMO. In 1984, when interviews for the current report were conducted, that figure had increased to 50%. The survey also reports, among other findings, that HMO members are considerably more likely to be satisfied with their benefits and with the cost of their health services in general and premiums in particular than are other members of the public. The study concludes that HMOs will continue to grow in the coming years despite rising competition from other medical payment systems. More than 15 million subscribers are enrolled in HMOs across the nation. At the current rate of growth, HMO membership will double every five years, the study concludes.

The MSMA House of Delegates took a number of actions during the 117th Annual Session last month. Watch for the July issue of your journal, which will include a complete report.

Sincerely,  
*Patsy Silver*  
Patsy Silver  
Managing Editor

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# DATELINE

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**Will DRGs Exacerbate  
Liability Problem?**

Washington, DC - A possible link between DRGs and increased liability suits requires that the system be studied further before more cuts and freezes are enacted, Rep. Robert Matsui (D, CA) has said. Predicting an "explosion" of liability suits, he noted that when TEFRA was enacted, there was no discussion of liability that might result from the government's pressures for cost reduction and early release of hospital patients.

---

**State Association  
Will Form IPA/HMO**

Atlanta, GA - Medical Association of Georgia reports approval of a plan to form a statewide association-directed and controlled Individual Practice Association (IPA) model Health Maintenance Organization (HMO) with all association members eligible to participate. The open panel type IPA/HMO is designed to compete in the growing prepaid market in Georgia and at the same time preserve the desirable qualities of private practice.

---

**Harvard Bids to Develop  
Relative Value Scale**

Chicago, IL - Harvard University submitted a proposal last month to the Health Care Financing Administration to develop a relative value scale in cooperation with the AMA. The AMA had proposed a professionally developed RVS as an alternative to physician payment based on DRGs, and submitted such a proposal to HCFA, which indicated interest in applications only from universities and independent research centers.

---

**HCFA Receiving Bids  
For Contract as Super-PRO**

Chicago, IL - The AMA submitted a bid to HCFA as a "super-PRO" to validate medical determinations of the 54 peer review organizations across the nation. The bid was submitted in response to a HCFA Request for Proposal, which describes four major validating procedures to be done by the contracting agency. At least 80,000 re-reviews would be conducted in the two-year contract period.

---

**Predictions on Patient  
Population Growth Trends**

Chicago, IL - Patient population growth will be strongest in the 30-44 year-old age group, according to projections in an AMA publication, "The Environment of Medicine." The number in that age group will increase from 51.9 million in 1985 to 59.9 million in 1990. In terms of percentage growth rate, the fastest growing category will be the 85 and older age group, expected to increase by 82.7% to 4.9 million people in 2000.

---

# A Case In Point For Early Intervention: Coronary Artery Disease

A 38 year old male enters the emergency room with severe substernal chest pain with ECG findings indicating significant ischemic changes involving the distribution of the left coronary artery. Despite available medical intervention the chest pain becomes more severe. What is the next course of action?

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# SORBITRATE® (ISOSORBIDE DINITRATE)

Please consult full prescribing information before use. A summary follows:

**INDICATIONS AND USAGE:** SORBITRATE (isosorbide dinitrate) is indicated for the treatment and prevention of angina pectoris. All dosage forms of isosorbide dinitrate may be used prophylactically to decrease frequency and severity of anginal attacks and can be expected to decrease the need for sublingual nitroglycerin.

The sublingual and chewable forms of the drug are indicated for acute prophylaxis of angina pectoris when taken a few minutes before situations likely to provoke anginal attacks. Because of a slower onset of effect, the oral forms of isosorbide dinitrate are not indicated for acute prophylaxis.

**CONTRAINDICATIONS:** SORBITRATE is contraindicated in patients who have shown purported hypersensitivity or idiosyncrasy to it or other nitrates or nitrites. Epinephrine and related compounds are ineffective in reversing the severe hypotensive events associated with overdose and are contraindicated in this situation.

**WARNINGS:** The benefits of SORBITRATE during the early days of an acute myocardial infarction have not been established. If one elects to use organic nitrates in early infarction, hemodynamic monitoring and frequent clinical assessment should be used because of the potential deleterious effects of hypotension.

**PRECAUTIONS: General:** Severe hypotensive response, particularly with upright posture, may occur with even small doses of SORBITRATE. The drug should therefore be used with caution in subjects who may have blood volume depletion from diuretic therapy or in subjects who have low systolic blood pressure (e.g., below 90 mmHg). Paradoxical bradycardia and increased angina pectoris may accompany nitrate-induced hypotension. Nitrate therapy may aggravate the angina caused by hypertrophic cardiomyopathy.

Marked symptomatic orthostatic hypotension has been reported when calcium channel blockers and organic nitrates were used in combination. Dose adjustment of either class of agents may be necessary.

Tolerance to this drug and cross-tolerance to other nitrates and nitrites may occur. Tolerance to the vascular and antianginal effects of isosorbide dinitrate or nitroglycerin has been demonstrated in clinical trials, experience through occupational exposure, and in isolated tissue experiments in the laboratory. The importance of tolerance to the appropriate use of isosorbide dinitrate in the management of patients with angina pectoris has not been determined. However, one clinical trial using treadmill exercise tolerance (as an end point) found an 8-hour duration of action of oral isosorbide dinitrate following the first dose (after a 2-week placebo washout) and only a 2-hour duration of effect of the same dose after 1 week of repetitive dosing at conventional dosing intervals. On the other hand, several trials have been able to differentiate isosorbide dinitrate from placebo after 4 weeks of therapy and, in open trials, an effect seems detectable for as long as several months.

Tolerance clearly occurs in industrial workers continuously exposed to nitroglycerin. Moreover, physical dependence also occurs since chest pain, acute myocardial infarction, and even sudden death have occurred during temporary withdrawal of nitroglycerin from the workers. In clinical trials in angina patients, there are reports of anginal attacks being more easily provoked and of rebound in the hemodynamic effects soon after nitrate withdrawal. The relative importance of these observations to the routine, clinical use of isosorbide dinitrate is not known. However, it seems prudent to gradually withdraw patients from isosorbide dinitrate when the therapy is being terminated, rather than stopping the drug abruptly.

**Information for Patients:** Headache may occur during initial therapy with SORBITRATE. Headache is usually relieved by the use of standard headache remedies or by lowering the dose and tends to disappear after the first week or two of use.

**Drug Interactions:** Alcohol may enhance any marked sensitivity to the hypotensive effect of nitrates.

Iosorbide dinitrate acts directly on vascular smooth muscle; therefore, any other agent that depends on vascular smooth muscle as the final common path can be expected to have decreased or increased effect depending on the agent.

**Carcinogenesis, Mutagenesis, Impairment of Fertility:** No long-term studies in animals have been performed to evaluate the carcinogenic potential of this drug. A modified two-litter reproduction study in rats fed isosorbide dinitrate at 25 or 100 mg/kg/day did not reveal any effects on fertility or gestation or any remarkable gross pathology in any parent or offspring fed isosorbide dinitrate as compared with rats fed a basal-controlled diet.

**Pregnancy Category C:** Iosorbide dinitrate has been shown to cause a dose-related increase in embryo-toxicity (increase in mummified pups) in rabbits at oral doses 35 and 150 times the maximum recommended human daily dose. There are no adequate and well-controlled studies in pregnant women. SORBITRATE should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

**Nursing Mothers:** It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when SORBITRATE is administered to a nursing woman.

**Pediatric Use:** The safety and effectiveness of SORBITRATE in children has not been established.

**ADVERSE REACTIONS:** Adverse reactions, particularly headache and hypotension, are dose-related. In clinical trials at various doses, the following have been observed.

Headache is the most common (reported incidence varies widely, apparently being dose-related, with an average occurrence of about 25%) adverse reaction and may be severe and persistent. Cutaneous vasodilation with flushing may occur. Transient episodes of dizziness and weakness, as well as other signs of cerebral ischemia associated with postural hypotension, may occasionally develop (the incidence of reported symptomatic hypotension ranges from 2% to 36%). An occasional individual will exhibit marked sensitivity to the hypotensive effects of nitrates and severe responses (nausea, vomiting, weakness, restlessness, pallor, perspiration, and collapse) may occur even with the usual therapeutic dose. Drug rash and/or exfoliative dermatitis may occasionally occur. Nausea and vomiting appear to be uncommon. Case reports of clinically significant methemoglobinemia are rare at conventional doses of organic nitrates. The formation of methemoglobin is dose-related and, in the case of genetic abnormalities of hemoglobin that favor methemoglobin formation, even conventional doses of organic nitrates could produce harmful concentrations of methemoglobin.

**DOSAGE AND ADMINISTRATION:** For the treatment of angina pectoris, the usual starting dose for sublingual SORBITRATE is 2.5 to 5 mg, for chewable tablets, 5 mg, for oral (swallowed) tablets, 5 to 20 mg, and for controlled-release forms, 40 mg.

SORBITRATE should be titrated upward until angina is relieved or side effects limit the dose. In ambulatory patients, the magnitude of the incremental dose increase should be guided by measurements of standing blood pressure.

The initial dosage of sublingual or chewable SORBITRATE for prophylactic therapy in angina pectoris patients is generally 5 or 10 mg every 2 to 3 hours. Adequate controlled clinical studies demonstrating the effectiveness of chronic maintenance therapy with these dosage forms have not been reported.

SORBITRATE in oral doses of 10 to 40 mg given every 6 hours or in oral controlled-release doses of 40 to 80 mg given every 8 to 12 hours is generally recommended. The extent to which development of tolerance should modify the dosage program has not been defined. The oral controlled-release forms of isosorbide dinitrate should not be chewed.

**DOSAGE FORMS AVAILABLE:** Sublingual Tablets (2.5, 5, 10 mg); Chewable Tablets (5, 10 mg); Oral Tablets (5, 10, 20, 30, 40 mg); Sustained Action Tablets (40 mg).



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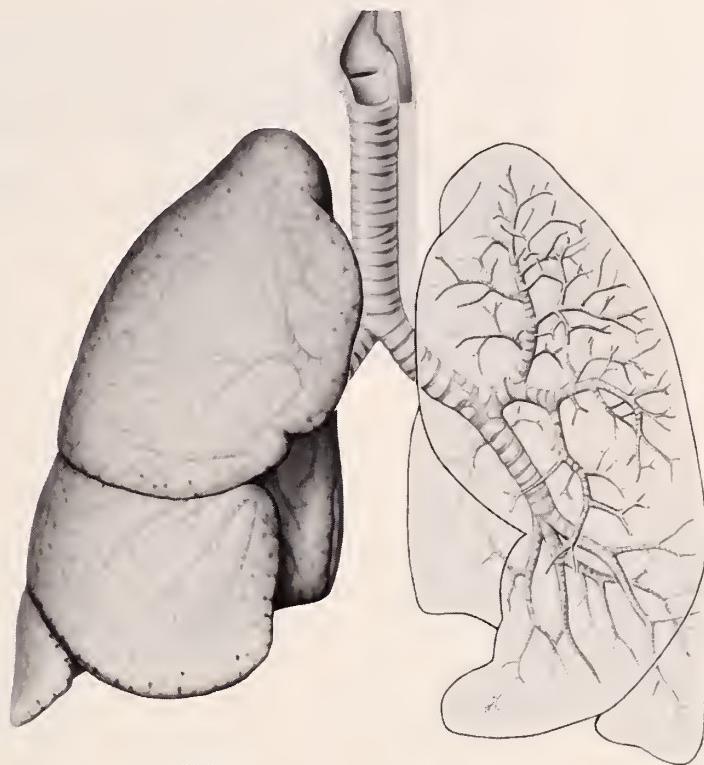
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***H. influenzae, H. influenzae, S. pneumoniae, S. pyogenes***  
(ampicillin-susceptible)  
(ampicillin-resistant)

**Brief Summary** Consult the package literature for prescribing information.

**Indications and Usage** Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms.

**Lower respiratory infections**, including pneumonia caused by

*Streptococcus pneumoniae* (*Diplococcus pneumoniae*), *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci).

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

**Contraindication** Ceclor is contraindicated in patients known to be cephalosporin allergic.

**Warnings** IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY.

THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCE IN WHICH

PATIENTS HAVE HAD REACTIONS, INCLUDING ANAPHYLAXIS, TO BOTH DRUG CLASSES.

Anaphylaxis to one drug in this class should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics (including macrolides, semisynthetic penicillins, and cephalosporins), therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with the use of antibiotics. Such colitis may range in severity from mild to life-threatening.

Frequent use of broad-spectrum antibiotics alters the normal flora of the colon and may permit overgrowth of *Clostridium difficile*. Studies indicate that a toxin produced by *Clostridium difficile* is one primary cause of antibiotic-associated colitis.

Mild cases of pseudomembranous colitis usually respond to drug discontinuance alone. In moderate to severe cases, manage-

ment should include sigmoidoscopy, appropriate bacteriologic studies, and fluid, electrolyte, and protein supplementation. When the colitis does not improve after the drug has been discontinued, or if it is severe, oral vancomycin is the drug of choice for antibiotic-associated pseudomembranous colitis produced by *C. difficile*. Other causes of colitis should be ruled out.

**Precautions: General Precautions** — If an allergic reaction to Ceclor (cefaclor) occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of Ceclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should taken.

Positive direct Coombs' tests have been reported during treatment with cefaclor and other antibiotics. In hemolytic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs' testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs' test may be due to the drug.

Ceclor should be administered with caution in the presence of marked impaired renal function. Under such conditions, careful clinical observation and laboratory monitoring should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions, and also with Clinistix® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.

**Usage in Pregnancy — Pregnancy Category B** — Reproduction studies have been performed in mice and rats at doses up to 12 times the human dose and in ferrets given three times the maximum

human dose and have revealed no evidence of impaired fertility or harm to the fetus due to Ceclor® (cefaclor, Lilly). There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

**Usage in Children** — Small amounts of Ceclor have been detected in mother's milk following administration of single 500-mg doses.

Average levels were 0.18, 0.20, 0.21, and 0.16 mcg/ml at 1, two,

three, four, and five hours respectively. Trace amounts were detected at one hour. The effect nursing infants is not known.

Caution should be exercised when Ceclor is administered to a nursing woman.

**Usage in Children** — Safety and effectiveness of this product for use in infants less than one month of age have not been established.

**Adverse Reactions** — Adverse effects considered related to therapy included rash, nausea, vomiting, and diarrhea.

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70).

Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment. Nausea and vomiting have been reported rarely.

Hypersensitivity reactions have been reported in about 1.4 percent of patients and include urticaria, angioedema (1 in 100).

Penicillinuria is a positive Dornier's test seen in less than 1 in 200 patients. Cases of serum sickness-like reactions (erythema multiforme or the acute skin manifestations accompanied by arthritis/arthralgia and, frequently, fever) have been reported.

These reactions are apparently due to hypersensitivity and have usually occurred during or following a second course of therapy with Ceclor. Such reactions have been reported more frequently in patients with renal impairment.

Stomatitis, Staphylococcal dermatitis, and conjunctivitis have been reported.

These reactions usually occur within a few days after initiation of therapy and subside within a few days after cessation of therapy. No serious sequelae have been reported.

Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which have

occurred in patients with a history of penicillin allergy. Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

**Causal Relationship Uncertain** — Transitory abnormalities in clinical laboratory results have been reported. Although they are of uncertain etiology, they are listed below to serve as alerting information for the physician.

**Hepatic** — Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

**Hematopoietic** — Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

**Renal** — Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

(0617B2R)

Note: Ceclor® (cefaclor, Lilly) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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**SEATED:** (Left to right) John F. Lucas, Jr., M.D., Greenwood, MS; R. Faser Triplett, M.D., Jackson, MS; Max L. Pharr, M.D., Jackson, MS.

**BACK ROW:** (Left to right) D.B. Conerly, M.D., Hattiesburg, MS; James M. Cooper, M.D., Tupelo, MS; Ralph L. Brock, M.D., McComb, MS; Louis A. Farber, M.D., Jackson, MS; Paul H. Moore, Sr., M.D., Pascagoula, MS; Joe S. Corington, M.D., Meridian, MS.



ORIGINAL PAPERS

# Surgical Therapy of Esophageal Strictures

JAMES W. MAHER, M.D.

Jackson, Mississippi

PEPTIC ESOPHAGEAL STRICTURE represents the far end of a pathologic spectrum that begins as simple reflux esophagitis. Both share the common etiology of gastroesophageal incompetence. Any procedure which attempts to treat esophageal stricture without treating its cause is thus doomed to failure. Recognition of the relationship between gastroesophageal reflux and symptomatic hiatus hernia has led to the development of a number of effective operations to prevent reflux. Nevertheless, patients with esophageal strictures still provide one of the biggest challenges faced by practitioners in the day to day therapy of esophageal diseases. As such, their treatment must be approached with clearly defined goals.

The first three goals in treating the individual with stricture are common to the surgical therapy of all patients with gastroesophageal reflux. Gastroesophageal competence must first be restored by increasing lower esophageal sphincter pressure. This may be accomplished by wrapping the distal esophagus with the fundus of the stomach, as in the Nissen, Belsey, or Hill procedures. The Nissen, and Belsey Mark IV procedures augment lower esophageal sphincter pressure by surrounding the sphincter with a high pressure collar of gastric fundus (see Figure 1).<sup>1</sup> The Hill procedure restores competence by both creating a secured segment of intraabdominal esophagus and tightening the gastric sling fibers.

The second general goal is to insure that the surgi-

---

*Peptic esophageal strictures represent the far end of a pathologic spectrum that begins as simple reflux esophagitis. Surgical therapy of esophageal strictures must therefore address not only the stricture but its cause. Annular strictures may be treated successfully with dilatation combined with an anti-reflux procedure. Longitudinal transmural strictures may be treated with either a combined fundic patch-fundoplication, or resection combined with visceral interposition. The author notes that tailoring the procedure to the individual situation results in a high percentage of good results.*

---

cally created barrier to reflux relaxes in response to deglutition to allow passage of a bolus of food, just as the normal sphincter does. Happily, the relaxation of the lower esophageal sphincter is vagally mediated and also involves the cardia of the stomach. This is one reason that the vagal nerves to the fundus must be preserved.

The third goal must be to insure that the antegrade resistance of this pressure barrier to reflux will be less than the propulsive force of the esophageal peristaltic wave. This is the prime reason for obtaining motility studies in patients prior to surgery for esophageal reflux. Patients with scleroderma, for example, have esophageal aperistalsis. This combination of aperistalsis with the increase in sphincter pressure induced by a Nissen wrap will frequently

From the Department of Surgery, University Medical Center, Jackson, MS.

Presented May 13, 1983, at the Section on Surgery, Mississippi State Medical Association Annual Session, Biloxi, MS.

result in dysphagia and esophageal obstruction by presenting a barrier to antegrade passage of food with more resistance than the esophagus can overcome. These patients rely almost exclusively on the hydrostatic pressure of the column of food in the esophagus to facilitate emptying. This is also the reason for taking special care to perform a loose wrap in all patients. The tighter the wrap, the greater will be the increase in sphincter pressure. Thus, a tight wrap may produce obstruction in even a normal esophagus. This obstruction leads to poor peristalsis and the patient can present with a picture that is distinguishable from achalasia only by the previous history of esophagitis.

Specific goals for the therapy of esophageal strictures are based on the morphologic type of stricture present. The first type of stricture is an annular stricture situated either at or slightly above the squamo-columnar junction. It is produced by submucosal inflammation and fibrosis, and is usually covered by intact mucosa. The second, more severe, type of stricture is a longitudinal inflammatory stricture. Longitudinal strictures are characterized by a thick fibrotic scar that infiltrates the esophageal wall transmurally from an ulcerated mucosa. The ascending nature of the inflammation and scarring is accompanied by scar contraction in all three dimensions. This results in a stricture that is characterized by esophageal shortening as well as stenosis. Treatment therefore, depends on both the patient's condition and the type and location of the stricture.

Dilatation and medical management is the traditional therapy for esophageal strictures. Some au-

thors have reported satisfactory results with this type of treatment; however in Belsey's extensive review of patients with peptic strictures, dilatation and medical therapy gave satisfactory long-term results in only 36% of patients.<sup>2</sup> There was likewise a 22% mortality. This type of therapy should now be reserved for the patient with medical contraindications to surgery.

Annular strictures, due to their limited submucosal involvement can be adequately treated by dilatation combined with an antireflux procedure. Woodward and colleagues combined dilatation with either a Hill or a Nissen procedure and achieved satisfactory results in 85 percent and 100 percent of patients respectively.<sup>3, 4</sup> Others report similar results. Most patients with an annular stricture should be approached transabdominally. The transthoracic approach should be used only in patients with a longitudinal stricture, or the suspicion of esophageal shortening. The transthoracic approach is also appropriate in patients with a previous transabdominal antireflux procedure that has failed. In this setting it allows the surgeon to avoid the footprints of the previous surgeon, and may allow a more precise anatomic reconstruction.

Many experienced esophageal surgeons advocate extensive intraoperative manipulations to dilate the stricture, that may include retrograde dilatation with Tucker bougies or transgastric finger fracture, in an attempt to avoid resection of strictures. In the wide spectrum between the annular and longitudinal transmural stricture, this approach results in a moderate degree of success if further acid peptic injury is prevented. Nevertheless, dilatation of a stricture in which scarring and inflammation are truly transmural results in hemorrhage, formation of granulation tissue, fibroblast proliferation, collagen deposition, and recurrent stenosis secondary to contraction and cross-linking of collagen. This is a basic biologic phenomenon that will not be altered by an antireflux procedure. Skinner and Belsey demonstrated a 37% failure rate for antireflux procedure and dilatation alone in patients with an acquired short esophagus.<sup>2</sup> The patient with short esophagus has by definition a transmural stricture.

There are two approaches to transmural strictures. The first is resection; the second is the so-called Thal-Nissen procedure. The Thal fundic patch utilizes well-established reconstructive techniques to replace part of the fibrotic esophageal wall with pliable well-vascularized fundic tissue lined by a skin graft. The skin graft prevents reepithelialization of the fundic patch by granulation tissue, and thus minimizes contraction of the lumen when compared

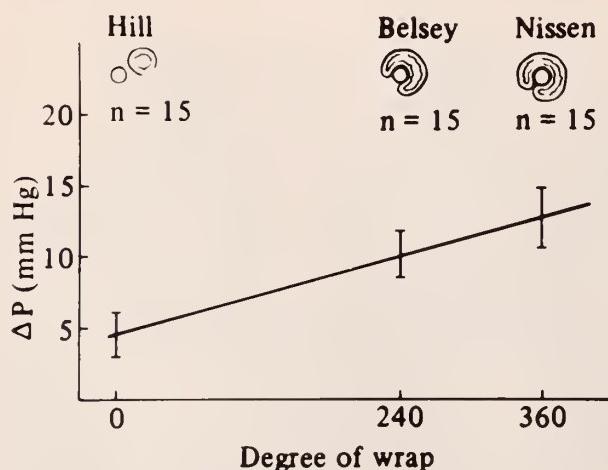


Figure 1. Change in lower esophageal sphincter pressure plotted against the completeness of the fundic wrap with the Hill, Belsey, and Nissen procedures.



Figure 2. Artist's conception of the longitudinal esophagotomy that opens the esophagus from above the stricture to the fundus. The Hurst dilator is used to stent the new esophageal lumen.



Figure 3a. An apex stitch is used to suture the apex of the fundic patch to the esophagotomy.

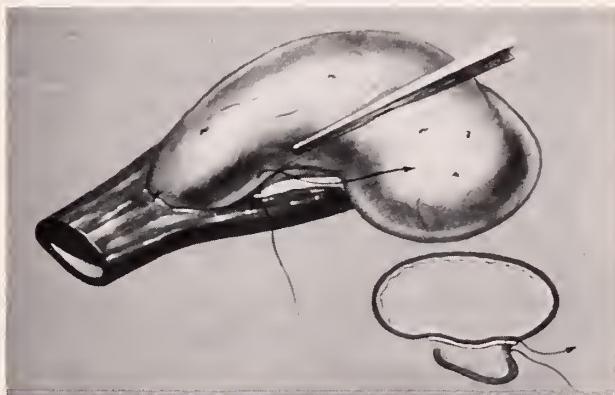


Figure 3b. Artist's conception of suturing the anterior wall of the fundic patch to the esophagotomy. Inset shows a cross-sectional representation of this step.

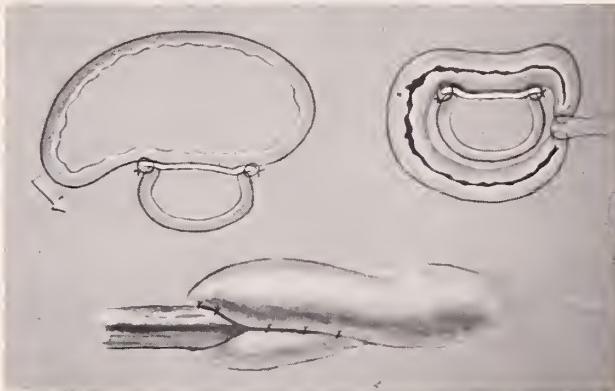


Figure 4. Cross-sectional representation of the fundic patch and the subsequent wrapping of the fundus completely around the esophagus to achieve a 360 degree fundoplication. Inset at bottom is the artist's representation of the completed procedure.

mercury weighted bougies. The length of the strictures averaged four centimeters. Average followup was 68 months. There were three deaths (4.4%). Eighty-four percent of all patients had a good result (90% of patients available for follow-up). There were three early poor results secondary to early recurrence of stricture. In addition, there were an additional three patients who experienced a late recurrence of their stricture after asymptomatic periods ranging from two to eleven years. Most of these poor results were obtained in patients with severely disordered esophageal motor activity, primarily either scleroderma or patients with stricture following a Heller procedure for achalasia. It is now felt that this group of patients with severely disordered motility may be better suited to visceral interposition. The Thal-Nissen procedure is now reserved for patients with longitudinal strictures that cannot be easily dilated in the preoperative period. As noted, patients with severely disordered peristalsis are not suitable candidates since the pressure barrier of the wrap may result in esophageal obstruction. The alternative to a combined Thal-Nissen procedure in patients with longitudinal strictures is a resection of the involved esophagus with either esophagogastrectomy or visceral interposition. Thus it is the morbidity and mortality of these procedures against which the results of the Thal-Nissen are measured.

Stricture resection and esophagogastrectomy is the most direct approach. Skinner and Belsey reported a 14% mortality with a 17% incidence of recurrent esophagitis.<sup>2</sup> Pearson devised an "ink-well" technique to help prevent reflux.<sup>7</sup> However, Wara et al, using this technique, reported a 25% incidence of recurrent stricture and an 87% incidence of recurrent esophagitis.<sup>8</sup> Clearly, esophagogastrectomy with stricture resection is not the answer in these patients.

Jejunal interposition with stricture resection was popularized by Merendino, who reported an 8.3% mortality with an 8% incidence of recurrent stricture.<sup>9</sup> Polk has published similar results.<sup>10</sup> Ferrier and Bruch however, noted a 15% mortality and, in addition, 15% of their loops had to be discarded because of an inadequate blood supply.<sup>11</sup> The results of this procedure seem to be rather directly related to the skill and experience of the responsible surgeon.

Results with colon interposition are even more varied. Skinner and Belsey reported a five percent mortality with no evidence of recurrent esophagitis or stricture.<sup>2</sup> Nevertheless, other investigators have reported mortalities ranging from 7 to 20% with up to a 27% incidence of recurrent stricture.<sup>11, 12</sup> The disadvantage of resection is that one has no fall-back

TABLE 1  
[68 patients]

Mean Length of stricture range (2-11 cm)	4 cm
Mean follow-up	68 months
Lost to follow-up	2/68 (3%)
Mortality	3/68 (4.4%)
Good results	57/68 (84%)
Early recurrence	3/68 (4.4%)
Late recurrence	3/68 (4.4%)

position. If the procedure fails, the patient may be left with a permanent esophagocutaneous fistula. A Thal-Nissen procedure may be done, reserving visceral interposition for the small percentage of cases that fail to respond to the Thal-Nissen procedure.

In summary, optimal treatment of patients with esophageal stricture requires of the esophageal surgeon a wide repertoire of procedures suited to the individual circumstance. Annular strictures will respond in almost all cases to dilatation and an antireflux procedure. The judgment as to whether a stricture is annular or transmural may be made by dilatation with mercury-weighted bougies and by the radiologic appearance of the stricture. There is considerable controversy regarding the transmural or "undilatable stricture." The Thal-Nissen procedure is preferred for patients with relatively normal peristalsis. It widens the distal esophagus and effectively prevents reflux without the relatively high mortality associated with visceral interposition. Visceral interposition should be reserved for patients with poor peristalsis, or patients who have failed to respond to a Thal-Nissen procedure.

Tailoring the operative procedure to the pathophysiology of the individual patient will produce satisfactory results in an overwhelming majority of patients.

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# Cystic Fibrosis in Adults

MARIAN W. GODBEY, M.D.

Aberdeen, Mississippi

CYSTIC FIBROSIS is the most lethal genetic disease of the white population in the United States. It occurs in one in 1500 to 2000 births. Cystic fibrosis was first recognized in 1938 at autopsy as an infant disorder thought to be confined to the pancreas with a maximum life expectancy of six months. Later it was recognized as a disease involving all exocrine glands and organs as well as the pancreas. One exception is the sweat glands which are not mucous secreting glands as are the other exocrine glands.

With early treatment 50% now have a life expectancy beyond age 20. To date the oldest adult when first diagnosed was 48 years old. Many others have a late onset, a milder form of the presenting signs of involved organs, and slower progression of presenting complaints resulting in delayed diagnosis until teenage or adulthood.

Failure to diagnose cystic fibrosis in adults is mostly because of lack of knowledge of the existence of the disease in adults.

Late and mild onset of significant manifestations of cystic fibrosis in childhood may cause the pediatrician to miss the diagnosis, causing a diagnostic problem later for an internist.

The writer of this paper had three patients in a Massachusetts tuberculosis sanatorium in the early 1940s who were non-confirmed cases of pulmonary tuberculosis. One of them later had the diagnosis confirmed by the sweat test as cystic fibrosis and lived to age 24 years. The second patient had right upper lobe infiltration and absent to diminished enzymes in the duodenal fluid as well as increased viscosity and consistently fluid, white bowel movements. He died in his teen years. The third had extensive pulmonary bilateral cavitary disease by chest x-ray and frequent and recurring rectal prolapse and died at age 3. All of these conditions and findings are strongly suggestive of cystic fibrosis in the absence of proof of tuberculosis and should demand a sweat test in a laboratory performing the test often enough to be competent.

The mucous glands in the entire respiratory tract are involved in the defects of cystic fibrosis.

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*The author emphasizes the presence of undiagnosed cystic fibrosis in adults and enumerates the varied manifestations, especially those not found in infants. She notes that all exocrine secreting organs are involved in varying degrees, and comments that the presenting signs vary greatly and their rate of progression may be delayed to adulthood. She reminds that the sweat test is the accepted diagnostic test.*

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Nasal polyps and paranasal sinusitis occur in 50% of adults. With relentless progression eventually all show pulmonary disease with a variety of manifestations. The first localized chest x-ray lesions usually appear in the right upper lung field.

Early generalized signs may be signs of hyperinflation and possibly scattered infiltrates. Later 98% of adults show increased interstitial markings. Other findings are recurring pneumonic areas and/or transient atelectasis.

## Presenting Complaints

The presenting complaints are most often chronic cough with globules of very tenacious viscid purulent sputum.

With age and progression of the disease, moist rales may be heard on chest auscultation. Bronchiectasis is typically in the upper lobes in contrast to lower lobes in most other causes of bronchiectasis. Cavities are not uncommon. Pneumothorax also occurs fairly frequently in adults but uncommonly in young children. It may be a presenting manifestation in adults and also a recurrent episode. Hemoptysis is also an adult complication. Sixty percent of cases are minor hemoptysis and 7% of those will have life threatening hemoptysis.

Another extremely strong suggestion for a diagnosis of cystic fibrosis is positive culture of the sputum for *Pseudomonas aeruginosa* or *Staphylococcus aureus* or both. Over age 30 these organisms are almost always present and almost impossible to eradicate permanently. *Pseudomonas aeruginosa* has its own peculiar protective shield against anti-

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biotics and has low nutritional needs. It is seldom found in other conditions although ubiquitous in our environment, especially in water.

With extensive pulmonary disease, clubbing of fingers and toes is frequently seen. A terminal event in most cystic fibrosis patients is pulmonary hypertension followed by right heart enlargement, cor pulmonale and death.

After respiratory abnormalities, pancreatic insufficiency is the second most common manifestation in adults with cystic fibrosis. However, it must be remembered that 10% of cystic fibrosis patients have normal release of pancreatic enzymes. There is marked variation in the degree of pancreatic insufficiency. Pancreatitis may be a recurring event in 21% of adults with cystic fibrosis.

Duodenal fluid yields strong evidence for cystic fibrosis because of the tenacious viscid fluid and the diminished or absent pancreatic digestive enzymes. Dr. Harry Shwachman, formerly chief of the Division of Clinical Nutrition, Children's Hospital Medical Center, and professor of pediatrics at Harvard Medical School, had used this finding, viscid duodenal fluid withdrawn by duodenal intubation, as a more immediate indication of cystic fibrosis before the sweat test.

### Intestinal Complications

Intestinal complications of enzyme insufficiency coupled with intestinal mucous gland abnormality contributes to recurring obstruction especially at a high level and intestinal intussusception (meconium equivalent in adults).

Some of these acute intestinal problems may be corrected by an enema with Gastrographen, possibly avoiding surgery.

The characteristics of the stool may be a clue to a diagnosis of cystic fibrosis. Usually the stool is solid but may be consistently fluid with a light color. The stool may be formed in the shape of balls rather than normal cylindrical shape and often has an extremely foul odor. Rectal prolapse is common in children but uncommon in adults. The liver may be seriously involved due to bile duct obstructions. It may lead to cirrhosis of the liver with portal hypertension, esophageal varices and bleeding. One percent of adult cystic fibrosis cases die with cirrhosis of the liver.

Cholelithiasis and heat prostration due to sweat salt loss are also more likely in adults.

Some adult males are identified in infertility clinics with complete absence of sperm in the semen due to duct obstruction by viscid secretions or other abnormalities. Spermatogenesis is normal as are

other sexual functions. Ninety-eight percent of cystic fibrosis males are sterile. Other conditions found with low to absent sperm are Young's syndrome, Klinefelter's syndrome and immotile sperm syndrome. The final differential rests on a normal sweat test in these syndromes.

Females have a very low fertility but a few have had children. A large percentage of adults marry. Those adults with milder disease are found working, attending college, or graduate school, even medical school and participating in sports.

### Sweat Test

The sweat test is the ultimate diagnostic test beyond which there is no other. This test was developed by Gibson and Cooke in 1959. It is an exacting test and the result should only be considered from a laboratory doing fairly large numbers of the sweat test. There are 120 laboratories identified by the Cystic Fibrosis Foundation capable of doing an accurate test. Special equipment is needed and experienced technicians.

A three MA current is passed through a pilocarpine soaked pad placed on a clean area of the forearm to provide stimulation of sweat glands for 5 minutes.

Sweat is collected in a weighted, low-sodium gauze pad covered with plastic and sealed with adhesive tape. The gauze pad is reweighed after 30 minutes. It is recommended that at least 100 mg of sweat be collected. The average is 150 mg.

The gauze pad is then eluted with a known quantity of distilled water. Chloride concentration is determined by titration. Sodium and potassium are measured by a flame photometer. Of these determinations chloride is the most important. Sweat chloride over 60 milli-equivalents per liter are diagnostic when considered with other signs of cystic fibrosis. When in doubt the test should be repeated on another day.

A few other conditions may give elevated sweat electrolytes. Among these are untreated adrenal insufficiency and untreated hypothyroidism.

Due to the high salt on the hands of adult cystic fibrosis patients in industries, these employees are often called "rusters." Handling delicate instruments with unwashed hands after eating salted peanuts can also be an industrial disaster. The salty taste of the sweat noted by the patient or others may be a clue in the medical history.

Request for the sweat test can be made to Dr. Suzanne Miller, Department of Pediatrics, University of Mississippi Medical Center, 2500 North State Street, Jackson, Mississippi 39216 or phone 1-987-3828.

Treatment should include exercise to the limit of tolerance for bronchial hygiene, antibiotics for lower respiratory infections and enzymes for pancreatic deficiency.

### Case Report

For some unknown reason this young man was kept in the hospital of his birth on July 30, 1941 for 6 weeks before discharge.

At age 3 months he was admitted to the Massachusetts General Hospital for severe paroxysmal cough where a bronchoscopy showed pus from a right upper lobe bronchus. A diagnosis was not established but whooping cough was considered.

At 6 months of age he was transferred to a Children's tuberculosis sanitorium. The severe coughing had not improved. Otitis media developed soon after admission. He was given sulfadiazine with prompt remission of the cough and drainage of pus from both ear canals. He did well following this except for a mild delay in weight gain, 21 lbs at 18 months, and was adopted by a staff physician as a well child.

At age 2 a lower respiratory infection occurred with complete recovery. The child was treated by a pediatrician who could not accept the possibility of cystic fibrosis suggested by the parent.

At age 5 he was admitted to the Children's Hospital in Boston because of another bout of lower respiratory infection. A visiting English physician recommended x-ray treatment of the pharangeal lymphatic area, although no visible hypertrophy was apparent or sign of infection. He received daily penicillin for the 5 weeks and was discharged with treatment by postural drainage. At home it was discovered that only one position yielded any sign of a productive or effective cough, and that was leaning forward in a sitting or standing position. This was true throughout his life.

At age 8, while visiting in western New York State, he again developed increased cough and was admitted to the Children's Hospital in Buffalo. Cystic fibrosis was not considered. He was referred to a local allergist who referred him to an allergy specialist in Boston. No diagnosis was established but the specialist recommended that the child be allowed to sleep with his mother because of hyperactivity.

At age 10 years and 9 months a routine chest x-ray at Children's Hospital in Boston was interpreted as suggestive of cystic fibrosis by the radiologist, Dr. Neuhauser, who requested permission to let Dr. Harry Shwachman see David. Dr. Shwachman has seen over 700 cases of cystic fibrosis.

At last the mother's presumptive diagnosis was confirmed by duodenal intubation for aspiration of pancreatic secretions and the sweat test by Dr. Shwachman.

From age 11-18 he did quite well and traveled in most of the states and eleven foreign countries on maintenance doses of whatever antibiotic Dr. Shwachman recommended and oral pancreatic enzymes.

At age 19 he experimented with cigarette smoking and learned that it was not for him. His cough became more severe with copious characteristic sputum and at times blood tinged. Exercise tolerance became greatly limited.

From that time on there was marked progression of his pulmonary disease which predominated over the pancreatic disease. Evidence of the pancreatic insufficiency were viscid duodenal fluid and the hard, ball-type stools occasionally of a light color and with foul odor. A few times he had to have an enema to relieve abdominal pain.

On one or two occasions a knee became swollen and painful.

A few weeks before his death he had taken a side trip to Boston to see Dr. Shwachman who advised him to not let anyone use positive pressure respiratory therapy on him because of the danger of pneumothorax.

The final event leading to his admission to a General Hospital in Buffalo, New York, was an "upset stomach with vomiting." There was some doubt about the need for hospital admission since he had driven from Mississippi to Buffalo, and was waiting to go to the family island camp 200 miles north of Ottawa, Canada, where his cough and general well being always improved. He was admitted to the hospital. Unfortunately he fell into aggressive treatment rather than conservative treatment.

An attempted bronchoscopy was unsuccessful and a tracheotomy was done and his natural bronchial hygiene posture was hindered. Catheter aspiration was not nearly as productive as natural coughing of the thick sticky sputum. In 3 days he died at age 24 less 5 days. The problem of the tenacious viscid sticky sputum in cystic fibrosis is a different problem in management than more fluid sputum.

The immediate problem at the time of his last hospitalization may have been related more to pancreatic and intestinal complications than pulmonary complications. Now that older persons are being recognized with cystic fibrosis consultation should be sought with a physician experienced in handling adults with cystic fibrosis.

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# Screening Colorectal Cancer — Rational Guidelines

WALTER T. BOONE, M.D.

Jackson, Mississippi

CANCER OF THE COLON and rectum is a major public health problem in the United States with 130,000 new cases and 59,400 deaths expected this year. The ten year survival rate in the United States has remained stable at 43%.<sup>1</sup> Only 41% of all detected colorectal cancers are in a localized stage without lymph node involvement. Almost all patients in whom colorectal cancer is detected in an asymptomatic stage have localized disease and are therefore potentially curable at surgery. Less than 4% have distant metastasis, and the five year survival approaches 90%.<sup>2</sup>

A practical, cost effective and aggressive surveillance program should be determined by the risk factors of a particular patient. Increased risk factors for colon cancer are: age, the presence of adenomatous or villous adenomas, a personal history of colon cancer, genetic predisposition, and chronic inflammatory bowel disease.

The incidence of colon cancer begins to rise during the age period from 40 to 45 and continues to increase approximately two-fold in each succeeding decade, reaching a peak at age 75. The risk for men and women is roughly the same.<sup>3</sup> Colon cancer does appear in younger individuals, especially in the presence of genetic predisposition or associated disease (see Table I). Patients with an adenomatous polyp or villous adenoma should be considered at higher risk for colon cancer.<sup>4</sup> Although the polyp-cancer controversy has not been completely resolved, it may be prudent to consider patients with polyps to be at higher risks for colon cancer, particularly with the availability of methods for detection and complete removal of polyps.

Mathematical models of the growth rate of polyps suggest that the doubling time of an adenoma is longer than that of a colorectal carcinoma. Two or three years are required for a diminutive adenoma to reach a diameter of 10.0 mm, at which size there is a

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*In this article, the last of three discussing colorectal cancer screening, the author suggests guidelines for a practical, cost-effective and aggressive surveillance program based on risk factors of a particular patient. He notes that survival in colon and rectal cancer is related to early detection. Risk factors include age, presence of adenomatous or villous polyps, prior history of colon cancer, genetic predisposition syndromes and chronic inflammatory bowel disease. He observes that patients with adenomas that are large (>2.0 cm), multiple, sessile, adenovillous or with severe dysplasia, and patients with previous colon cancer are at a particularly high risk.*

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significant risk of malignancy. A clinical study, based on the average age of patients and the histological grading of epithelial atypia in adenomas, found that the average time for malignant transformation to be 18 years for adenomas with mild dysplasia, compared with 3.6 years for adenomas with severe dysplasia.<sup>5</sup>

Data concerning the time of development of new adenomas during a followup period are scarce and conflicting. Generally, the rate of recurrence of adenomas increases as the interval between the index polypectomy and the followup examination increases.<sup>6</sup> Several factors have been related to increased incidence of recurrent adenomas. Adenomas larger than 2.0 cm in diameter are associated with a high incidence of metachronous adenomas than are smaller ones. The recurrence rate almost doubles when removal of a single adenoma is compared to that of multiple adenomas.<sup>7</sup> The severity of dysplasia is associated with a greater incidence of recurrent adenomas.<sup>8</sup>

Patients who have had a previous colon cancer are at a higher risk for development of a second colon

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Dr. Boone is engaged in the private practice of gastroenterology in Jackson, MS.

TABLE I  
COLORECTAL CANCER RISK FACTORS

Age — 40+ Male & Female
Colon Cancer or Polyps
Genetic Predisposition
— Polyposis Syndromes
— Non-Polyposis — Inherited Colon Cancer
— Family Cancer Syndrome
Chronic Inflammatory Bowel Disease

cancer. There is a three-fold increase in risk over the general population in the subsequent annual incidence of primary cancer of the large intestine. The highest risk for a second colon cancer in patients with a previous colon cancer was in those patients who had their cancer in the cecum. Adenomatous polyps in the resected specimen further increase the risk of future colon cancer to six-fold.<sup>9</sup>

Some families are considered to be cancer families because of the high incidence of carcinoma in multiple anatomic sites such as endometrium, ovary, breast and colon. In these families there is a predisposition to onset of colon cancer at an early age and predisposition to right-sided colon cancer.<sup>10</sup> Relatives of patients who have had colon cancer are at a three-fold risk of developing colon cancer than that seen in the general population.

#### Genetic Factors

There has been a better understanding of genetic factors in colorectal cancer. There are several genetically determined polyposis syndromes with a clear relationship to colorectal cancer. These demonstrate reliable biological markers that may alert the physician to the possibility of recurrence in a family. More recently, the concept of non-polyposis-inherited colorectal cancer has been reported. In the non-polyposis syndrome, the colon is not carpeted by myriads of adenomas, but the adenoma is the important precursor lesion. The non-polyposis-inherited colon cancer syndrome may be divided into site-specific colorectal cancer syndrome and the family cancer syndrome. In patients with familial polyposis, almost all will develop colon cancer in their lifetime unless colectomy is performed. Gardner's syndrome carries a high risk for colon cancer. In this syndrome, adenomatous polyps occur primarily in the colon and are associated with a variety

of soft tissue and bony tumors. Other rare polyposis syndromes such as Turcot's syndrome (central nervous system tumors) and Oldfield's syndrome (extensive sebaceous cysts) share the same high risks for colon cancer. Peutz-Jeghers syndrome was considered in the past to be completely benign but cancers of the stomach, duodenum, ileum and colon have been reported.<sup>7</sup>

The likelihood of developing colon cancer in patients with ulcerative colitis is about five to ten times that expected in the population of the United States. The risk of malignant change begins to rise at 10 years and is considered to be higher with universal disease as compared to left-sided colitis or proctitis. The cancers tend to be multicentric and often in a high histological grade of malignancy. They may develop in a symptom free period.<sup>11</sup> In granulomatous colitis, cancer of the colon occurs but in a much lower incidence rate in comparison with ulcerative colitis.<sup>12</sup>

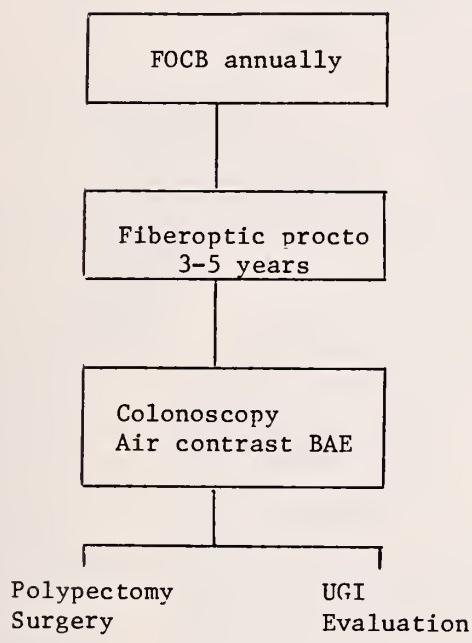
#### Categories of Risk

With this information it is possible to develop categories of risk of development of colorectal cancer for individual patients. Categories considered at higher risks justify closer surveillance for colorectal cancer detection.<sup>6</sup>

*Category I* — This category is composed of asymptomatic patients 40 or above (see Figure 1). Patients with hyperplastic polyps should be considered in this category as these polyps have little or no malignant potential. Patients with a significant family history of colorectal cancer should be screened beginning at an earlier age. These patients should have a fecal occult blood test annually with a fiberoptic proctoscopic examination every three to five years. If either be positive, complete colonoscopy with an air contrast barium enema should be performed. If nothing is found on evaluation of the colon, an upper GI evaluation is indicated.

*Category II* — These are patients at minimal risk of developing colorectal cancer (see Figure 2). These patients have had adenomas removed previously. The adenomas are usually solitary, less than 2.0 cm and pedunculated. Previously resected sessile adenomatous polyps should be considered in this category as well as those adenomas that have mild or moderate dysplasia. The surveillance scheme depends on an initial complete colonoscopy with "clearing" of the colon. These patients should have a fecal occult blood test annually along with fiberoptic proctoscopic examination every two years. If either be positive, complete colonoscopy and air contrast barium enema should be performed. If the

Asymptomatic Age 40 & Above  
Significant Family History  
Hyperplastic Polyp



*Figure 1. Colorectal cancer screening for average risk patients.*

colon is free of disease, an upper GI evaluation would then be in order.

**Category III** — This category comprises high risk patients (see Figure 3). Patients with multiple adenomas, adenomas equal to or greater than 2.0 cm, should be in this category. A patient with an adenoma that was sessile villous, adenovillous, or demonstrating severe dysplasia or carcinoma in situ should be in this high risk category. Patients with a prior history of colon cancer and patients with a family history of non-polyposis colon cancer syndrome deserve the increased scrutiny of this category. A complete colonoscopy and air contrast barium enema has been done prior to entrance in this category. Patients should have fecal occult blood tests annually. Complete colonoscopy should be performed at one year post resection to detect a missed synchronous lesion. Fiberoptic proctoscopic examination should be performed yearly thereafter with total colonoscopy and air contrast barium enema every three years.

#### Previous Colon Polyp

- Adenoma - Single
  - <20 mm.
  - Pedunculated
  - Sessile Adenomatous
  - Mild Dysplasia

#### Fecal Occult Blood Annually

#### Fiberoptic Procto - 2 years

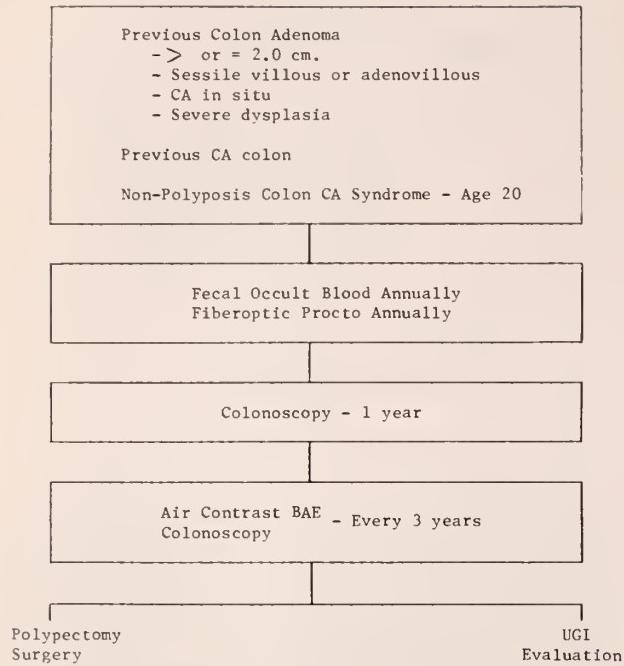
#### Colonoscopy Air Contrast BAE

Polypectomy  
Surgery

UGI  
Evaluation

*Figure 2. Colorectal cancer screening for minimal risk patients.*

**Category IV** — Patients with chronic ulcerative colitis of a duration longer than 10 years and those patients with granulomatous colitis of equal duration are placed in a special category (see Figure 4). Also, patients with the polyposis syndrome (carpet polyps) should also be in this special category. The surveillance of these patients is simplified by the fact that a majority of these patients will have a total colectomy or subtotal colon resection by the time they are placed in this category. The surveillance is complicated by the fact that the fecal occult blood test cannot be used since positive tests may occur without a superimposed cancer. For patients who have had a subtotal resection, fiberoptic proctoscopic examination should be done on a yearly basis with random biopsies. For those patients with chronic inflammatory bowel disease who have not had colon resections, colonoscopy with random biopsies should be performed on a yearly basis.



*Figure 3. Colorectal cancer screening for high risk patients.*

### Summary

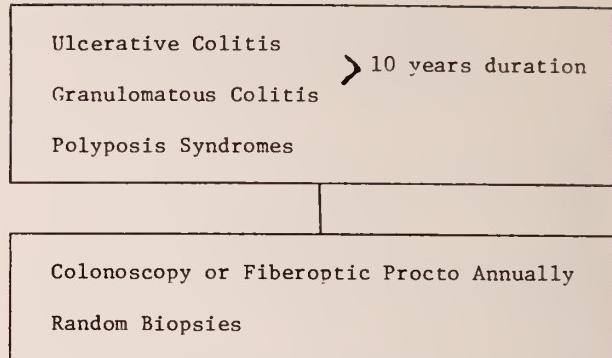
These guidelines should serve as a rational framework for surveillance of patients with different degrees of risk for development of colorectal cancer. The categorization of risk is designed to be cost effective and should aid in patient compliance. As more information becomes available, these recommendations will need to be revised. Early detection of colorectal cancer and removal of precancerous colon lesions should reduce the mortality of the disease and ultimately reduce the incidence of colorectal cancer.

★★★

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*Figure 4. Colorectal cancer screening for special category patients.*

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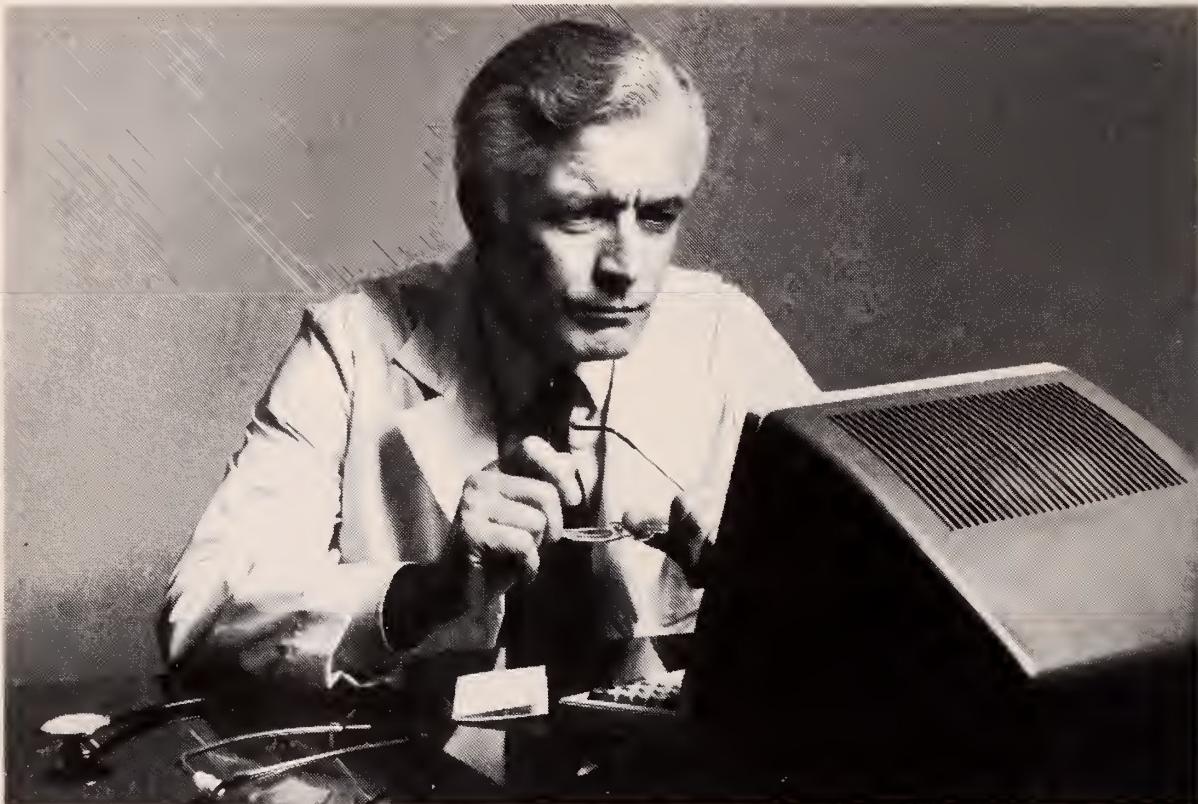
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# Medical Computing: The Remote Database

RICHARD H. STREIFFER, M.D.

Denver, Colorado

ABOUT A YEAR and a half ago, I became involved in a search for a medical computing system that would "straighten out the paperwork and bookkeeping" in our clinics' business offices. At that time I was a complete novice having no direct, prior exposure to or experience with computers. However, I soon developed a gut-level feeling of excitement about computers, leading me to agree with the plethora of opinions projecting their important role in the future of medical practice.

Most physicians who have integrated computers into their practices have, in fact, edged into the Computer Age by way of their business offices. A majority of these physicians seem to be quite intimidated by the terminology and technology, dubious of the actual benefit the computer will bring, yet hopeful of receiving at least a good tax-benefit. Furthermore, they are largely unaware of the true potential a computer could play in the practice of medicine.

It is quite clear that computers are in medicine to stay, though applications other than financial are just beginning to become more commonplace. The speed with which the computer becomes an everyday implement of physicians will depend not only on the software developers and technical people, but on our profession's wishes and initiatives. I would like, through this article, to share some of the insight I have gained into the exciting future of medical computing, and to encourage other physicians to look beyond their business offices when they think of computers in medicine.

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*Computers are in medicine to stay, although applications other than financial are just beginning to become more commonplace, the author comments. He describes his experience with the medical information database, particularly MINET, and recommends it as a quick, affordable source of current information.*

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## Information Handling

The decision-making processes in today's practice of medicine are highly dependent on information and facts. The last 20 years have been characterized by dramatic technological and therapeutic advances resulting in an intimidating volume of information for physicians to read, comprehend and assimilate into their daily practices. As examples, today's medical students are asked to grasp almost 50,000 facts and 20,000 terms during their basic science years alone. And a 1980 Medline search by National Library of Medicine researchers produced 16,000 references in English on the subject of viral hepatitis.

Clearly, no one individual can hope to master all there is to know in even a single subspecialty area let alone all of general medicine itself. There is simply too much changing, expanding information. An individual's success in medical practice in 1985 is measured as much by his/her mastery of "keeping up" and "knowing where to find the facts when you need them" as it is by success at the "doctor-patient relationship" of old.

Information handling is the one area where computers have the greatest potential for assisting us.

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Dr. Streiffer, formerly of the Department of Family Medicine, University Medical Center, now is associated with the Department of Family Medicine, Mercy Medical Center, Denver, CO.

Most medical office computers are bought, in fact, to handle the financial and demographic information necessary to run the business side of medicine. That is precisely what computers do so well — handle information. They can store vast quantities of data, retrieve it quickly and efficiently when we need it, run comparisons between bits of data, and combine the information according to our specifications into reports via computation and calculation. Furthermore, computers allow us to change or update the data any time we need with great ease. There is little that a computer does that enough people with enough pencils, paper and time couldn't do manually. But the computer allows data handling at a vastly faster rate than even the best clerical staff.

Computer researchers speak of future developments that will allow a computer to "think" or "reason" much like the human brain. Computer-assisted diagnosis and artificial intelligence are two such experimental techniques that are unfortunately still years from common, practical use.

However, those of us with office or home computers have available to us today a very powerful, and underutilized, information tool called the remote database, waiting to help us in our struggle to keep current.

### What Is a Database?

A database is a structured collection of information somewhat analogous to a library, except that it is stored in a computer rather than in books on a library shelf. To get information from a library, we first use the card file or index to locate the source of the information we desire. We then walk to that source, take the book off the shelf, and can read the information.

In using a computer database, however, we "go to the library" by connecting our personal computer via a device called a modem across telephone lines to a large, main-frame computer where the database is stored. The card file now takes the form of "menus" or "commands" as the computer prompts us to specify what information we seek. When our request is complete, the mainframe computer then accesses the information from its memory and sends it back to our personal computer across the phone line. Much of the tedious work involved in pulling sources and sorting through them is done effortlessly by the computer. Furthermore, the computer lets us combine criteria in our information search by, for example, allowing us to ask for articles on hepatitis *and* pregnancy, or on hypochromic anemia *but not* iron deficiency.

Medical database services containing voluminous

quantities of facts are available today for our use. Medical libraries have been using such services for years to conduct Medline literature searches. However, databases have more recently become affordable, "user friendly," and hence accessible to individuals and their personal microcomputers.

### MINET

The MEDICAL INFORMATION NETWORK (MINET) is perhaps the prototype, multi-purpose, easy-to-use medical database service available today. Developed and supported by the American Medical Association and GTE, it offers a breadth of medical information and news that is useful to physicians of all specialties and practice settings. It includes sections devoted to drug information (including Patient Medication Information sheets), synopses of some 3500 diseases, current clinical and socioeconomic literature from about 700 journals, CPT coding information and continuing medical education. Plus, there is an electronic communications section called Med/Mail for sending and receiving messages from other users or organizations like the CDC or FDA.

While it is true that textbooks and journals offer the same information as databases, many of you are all too familiar with the limitations of hardcopy books. Most texts, for example, are outdated these days shortly after publication, reflecting both the information explosion and the delay in getting a book into print. The high cost of medical books makes it impractical for most practitioners and many smaller institutional libraries to update their books often enough to keep them current. Furthermore, it seems that the books are always either checked out, locked up or otherwise inaccessible when needed.

But assume for the moment that your library has current books and journals awaiting you on its shelves. What about the time and tedium involved in actually searching for information? How long would it take you to find a list of non-diuretic antihypertensive drugs that don't cause impotency? Or to find a description of the diseases in the differential diagnosis of thigh pain and numbness without associated back pain? And can you get a list of recent articles on hepatitis associated with systemic lupus erythematosus? Yes, of course you *can* find all these easily with a modest amount of experience in using a medical library. But I can do it easier and *much* faster on my computer using MINET. And in fact, those three lists were actual searches that I recently accessed on MINET. (I have now exposed my secret. Please don't tell my residents. They think I'm smart.)

MINET's databases are updated as often as week-

Before prescribing, see complete prescribing information in SK&F CO. literature or PDR. The following is a brief summary.

\* **WARNING**

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

**Contraindications:** Concomitant use with other potassium-sparing agents such as spironolactone or amiloride. Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

**Warnings:** Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K<sup>+</sup> levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K<sup>+</sup> intake. Associated widened QRS complex or arrhythmia requires prompt additional therapy. Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

**Precautions:** The bioavailability of the hydrochlorothiazide component of 'Dyazide' is about 50% of the bioavailability of the single entity. Theoretically, a patient transferred from the single entities of Dyrenium (triamterene, SK&F CO.) and hydrochlorothiazide may show an increase in blood pressure or fluid retention. Similarly, it is also possible that the lesser hydrochlorothiazide bioavailability could lead to increased serum potassium levels. However, extensive clinical experience with 'Dyazide' suggests that these conditions have not been commonly observed in clinical practice. Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids, and during concurrent use with amphotericin B or corticosteroids or corticotropin [ACTH]). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Cumulative effects of the drug may develop in patients with impaired renal function. Thiazides should be used with caution in patients with impaired hepatic function. They can precipitate coma in patients with severe liver disease. Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic and hemolytic anemia have been reported with thiazides. Thiazides may cause manifestation of latent diabetes mellitus. The effects of oral anticoagulants may be decreased when used concurrently with hydrochlorothiazide; dosage adjustments may be necessary. Clinically insignificant reductions in arterial responsiveness to norepinephrine have been reported. Thiazides have also been shown to increase the paralyzing effect of nondepolarizing muscle relaxants such as tubocurarine. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. Triamterene has been found in renal stones in association with the other usual calculus components. Therefore, 'Dyazide' should be used with caution in patients with histories of stone formation. A few occurrences of acute renal failure have been reported in patients on 'Dyazide' when treated with indomethacin. Therefore, caution is advised in administering nonsteroidal anti-inflammatory agents with 'Dyazide'. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia is uncommon with 'Dyazide', but should it develop, corrective measures should be taken such as potassium supplementation or increased dietary intake of potassium-rich foods. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Concurrent use with chlorpropamide may increase the risk of severe hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

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**Supplied:** 'Dyazide' is supplied as a red and white capsule, in bottles of 1000 capsules; Single Unit Packages (unit-dose) of 100 (intended for institutional use only); in Patient-Pak™ unit-of-use bottles of 100.

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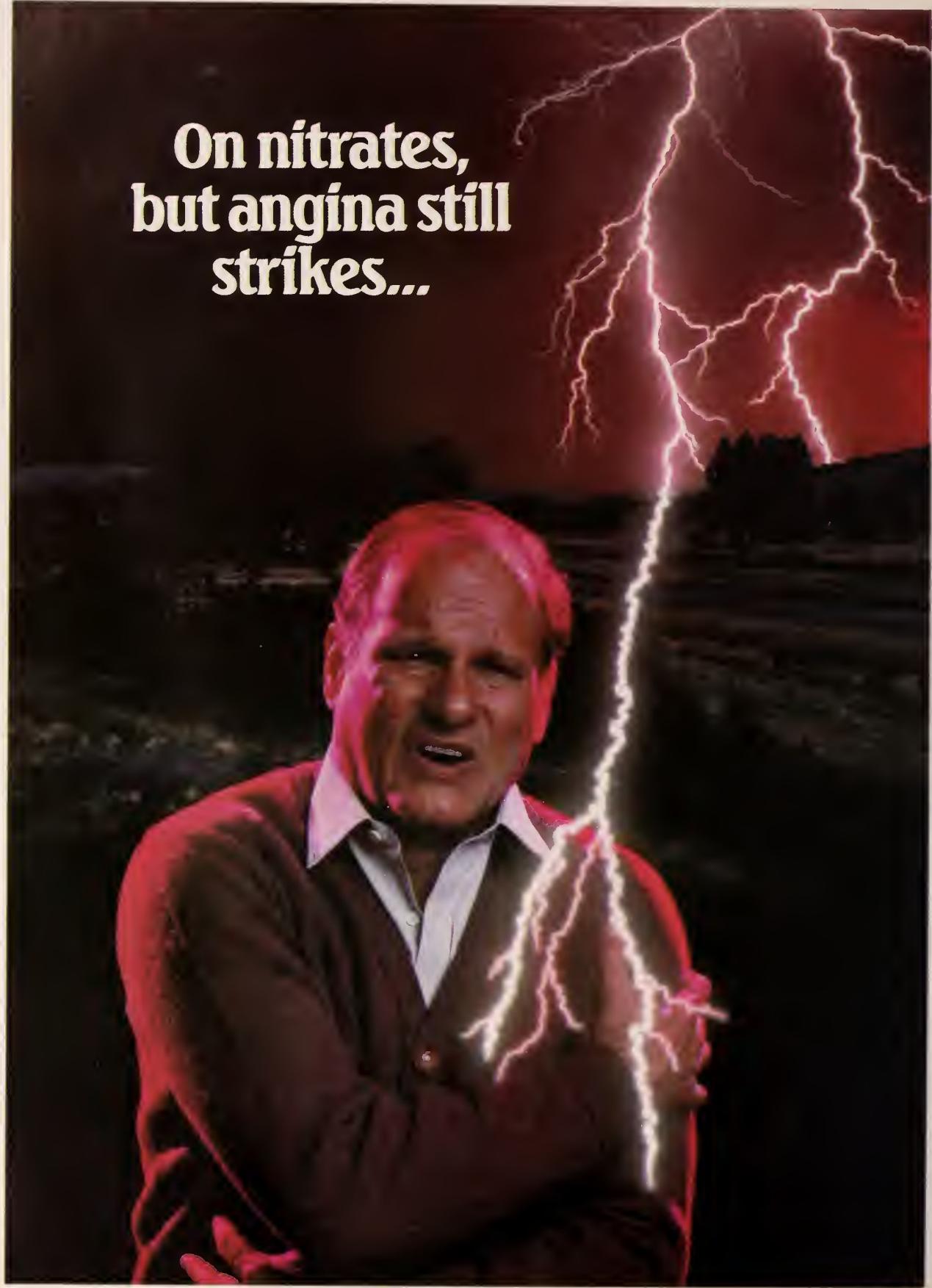


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Elevations of transaminases with and without concomitant elevations in alkaline phosphatase and bilirubin have been reported. Such elevations may disappear even with continued treatment, however, four cases of hepatocellular injury by verapamil have been proven by rechallenge. Periodic monitoring of liver function is prudent during verapamil therapy. Patients with atrial flutter or fibrillation and an accessory AV pathway (e.g. W-P-W or L-G-L syndromes) may develop increased antegrade conduction across the aberrant pathway bypassing the AV node, producing a very rapid ventricular response after receiving ISOPTIN (or digitalis). Treatment is usually D C.-cardioversion, which has been used safely and effectively after ISOPTIN. Because of verapamil's effect on AV conduction and the SA node, 1° AV block and transient bradycardia may occur. High grade block, however, has been infrequently observed. Marked 1° or progressive 2° or 3° AV block requires a dosage reduction or, rarely, discontinuation and institution of appropriate therapy depending upon the clinical situation. Patients with hypertrophic cardiomyopathy (IHSS) received verapamil in doses up to 720 mg/day. It must be appreciated that this group of patients had a serious disease with a high mortality rate and that most were refractory or intolerant to propranolol. A variety of serious adverse effects were seen in this group of patients including sinus bradycardia, 2° AV block, sinus arrest, pulmonary edema and/or severe hypertension. Most adverse effects responded well to dose reduction and only rarely was verapamil discontinued. **Precautions:** ISOPTIN should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of excessive pharmacologic effects. Studies in a small number of patients suggest that concomitant use of ISOPTIN and beta blockers may be beneficial in patients with chronic stable angina. Combined therapy can also have adverse effects on cardiac function. Therefore, until further studies are completed, ISOPTIN should be used alone, if possible. If combined therapy is used, close surveillance of vital signs and clinical status should be carried out. Combined therapy with ISOPTIN and propranolol should usually be avoided in patients with AV conduction abnormalities and/or depressed left ventricular function. Chronic ISOPTIN treatment increases serum digoxin levels by 50% to 70% during the first week of therapy, which can result in digitalis toxicity. The digoxin dose should be reduced when ISOPTIN is given, and the patients should be carefully monitored to avoid over- or under-digitalization. ISOPTIN may have an additive effect on lowering blood pressure in patients receiving oral antihypertensive agents. Disopyramide should not be given within 48 hours before or 24 hours after ISOPTIN administration. Until further data are obtained, combined ISOPTIN and quinidine therapy in patients with hypertrophic cardiomyopathy should probably be avoided, since significant hypotension may result. Clinical experience with the concomitant use of ISOPTIN and short- and long-acting nitrates suggest beneficial interaction without undesirable drug interactions. Adequate animal carcinogenicity studies have not been performed. One study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. **Pregnancy Category C.** There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor and delivery only if clearly needed. It is not known whether verapamil is excreted in breast milk; therefore, nursing should be discontinued during ISOPTIN use. **Adverse Reactions:** Hypotension (2.9%), peripheral edema (1.7%), AV block 3rd degree (0.8%), bradycardia HR < 50/min (1.1%), CHF or pulmonary edema (0.9%), dizziness (3.6%), headache (1.8%), fatigue (1.1%), constipation (6.3%), nausea (1.6%), elevations of liver enzymes have been reported (See *Warnings*.) The following reactions, reported in less than 0.5%, occurred under circumstances where a causal relationship is not certain: ecchymosis, bruising, gynecomastia, psychotic symptoms, confusion, paresthesia, insomnia, somnolence, equilibrium disorder, blurred vision, syncope, muscle cramp, shakiness, claudication, hair loss, macules, spotty menstruation. **How Supplied:** ISOPTIN (verapamil HCl) is supplied in round, scored, film-coated tablets containing either 80 mg or 120 mg of verapamil hydrochloride and embossed with "ISOPTIN 80" or "ISOPTIN 120" on one side and with "KNOLL" on the reverse side. Revised August, 1984.

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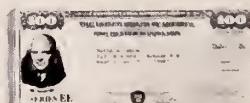
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In a few years, we'll probably look back on today's databases as primitive, crude, unsophisticated tools. They are not perfect by any means, and can be frustrating and at times disappointing to use. But by and large, I get excited everytime I sit down and log

on to MINET. My fascination with the wonder of computer technology grows with each bit of experience, and my understanding of computers has certainly come a long way. For those of you who have already taken the plunge into computers whether via the business office or a home model, don't stop short of experiencing medical information databases. I think you'll find it an exciting glimpse into the future of medical practice.

★★★

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#### References

1. Naisawald, GV. "Your Computer Puts the Literature at Your Fingertips"; Medcomp, Oct:34-38, 72, 1983.
2. Reid, RA. "The Physician in the Information Age: A Reflection on Microcomputing and the Practice of Medicine." M.D. Computing, 1:66-71, 1984.
3. Schoolman, HM. "Overwhelmed and Underprepared: The Clinical and Medical Information"; Update: Computers in Medicine, 2:20-23, 1984.

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## The President Speaking

### The New Kid on the Block

Ralph L. Brock, M.D.  
McComb, Mississippi

Eighteen months ago, writing this page was beyond my wildest imagination. I am still feeling somewhat overwhelmed by what has happened to me in a short year and a half. I truly feel like a new kid on the block.

I am deeply honored and humbled by being elected as your president this year, and I want to do my best to maintain the confidence you have bestowed on me. Billie and I are looking forward to seeing and visiting with as many of you as possible during the coming months.

As I have been thinking of what to share with you on this page each month, I have had a delightful time reflecting on my 36 years in practice trying to bring to mind something that might be of general interest. Don't be surprised if a few of these stories show up — but even if they don't, I have enjoyed reminiscing.

If my being president seems as new to you as it does to me, I thought I should tell a little about where I come from:

I have been fortunate to have had wide and varied duties connected with my medical practice. During my first 20 years I had every (literally) job needed in a 40-bed hospital, from administrator to janitor and anesthetist to lab technician. I delivered babies for 20 years, did general surgery for 25 years, and even did two years of physical medicine in the Army. I feel at home talking to all types of medical and hospital personnel because I can swap personal experiences with most of them.

My father and grandfather were country doctors before me. I was privileged to practice with my father during his last 15 years, and much of him rubbed off on me during that time.

Enough of the past — we are in the midst of exciting and challenging changes that influence the way we practice medicine. If we stop to look back, even briefly, we may miss seeing something as it passes us by.

Maybe it would seem strange to picture a country doctor sitting in front of a computer terminal; however, all it takes is that willingness to change with the times, and accept new challenges.

I want to thank you again for the honor of being your president. I covet your prayers and continued support for what I hope to be a truly enjoyable and successful year.

★★★

## EDITORIALS

# JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION

VOLUME XXVI, Number 6

JUNE 1985

### Mother Teresa Strikes Again!

I guess it is just as well that I was indisposed with a detached retina and so was unable to attend the called meeting of the House of Delegates that approved the report and recommendations on "Quality Medical Care at a Reasonable Cost." I have carefully perused a copy of this beautifully composed and lengthy document. All sorts of cliches spring to mind — "Motherhood and Apple-Pie," "Blowing in the Wind," "Spinning Our Wheels," "Wishful Thinking," etc., etc.

I would have hated to be a "downer," but I just don't believe I could have sat still and voted to approve this masterpiece of bureaucratese that outlines so many lovely changes that would benefit our beleaguered profession, none of which we can do anything about except hope! It's strictly up to the health insurance people, the federal and state governments, the hospitals and the consumers (who used to be called "Patients," remember?).

I have another one of my inimitable suggestions! Nowhere in the list of recommendations is there mentioned the one thing that would prove without any doubt that we are serious about health cost containment which is — get ready for this — a voluntary across-the-board reduction in our fees without fanfare or prior announcement. Just do it and let this astounding move work itself up from the ones it affects the most — our patients, who are after all the great electorate. It would gain their attention and show them that we indeed mean business. A few Porsches might have to be parked and a few stock 'folios might have to be altered, but they would get the message to the insurers, the government and the hospitals!

How does a fifty or at least twenty-five percent reduction grab you?

ARTHUR A. DERRICK, M.D.  
Associate Editor

### Medico-legal Brief

#### Physician Not Guilty of Immoral Conduct

A physician's attempt to intimidate witnesses in a malpractice suit did not constitute "immoral conduct" in his practice as a physician, the highest court of Maryland ruled.

The physician, an orthopedic surgeon, learned that two physicians were to testify as experts against him. He was concerned that they were inexperienced, had never examined the patient, and had little knowledge of the use of Harrington instrumentation for spinal fixation, the procedure named in the suit. Through other physicians, he communicated to the experts his intention of having transcripts of their depositions disseminated to their local and national medical societies, allegedly to make certain that their testimony would be honest, reasonable, and medically accurate.

When the trial judge learned of this communication, he chastised the orthopedist for misconduct but found no improper intent. The jury decided for the orthopedist. An appellate court reversed for error in jury instructions as to the orthopedist's alleged attempt to intimidate the witnesses.

In disciplinary proceedings, the Commission on Medical Discipline found that even if the physician did not intend to influence the witnesses' testimony he should have known that his conduct was intimidating and improper. The Commission concluded that he had violated the law and reprimanded him.

On appeal, the trial court held that the Commission's decision that the physician's conduct had occurred in his practice as a physician was based on an erroneous application of the law. The court said that to fall within the applicable statute, the physician's conduct must be shown to have a "det-

(Continued on page 179)

## MEETINGS

### National and Regional

American Medical Association, Annual Meeting, June 16-20, 1985. Chicago. James H. Sammons, Executive Vice President, 535 N. Dearborn St., Chicago, IL 60610.

### State and Local

Mississippi State Medical Association, 118th Annual Session, June 4-8, 1986. Biloxi. Charles L. Mathews, Executive Secy., 735 Riverside Drive, P.O. Box 5229, Jackson 39216. Mississippi Academy of Family Physicians, Annual Meeting, June 26-29, 1985. Biloxi. Mrs. Alyce Palmore, Executive Secy., P.O. Box 12330, Jackson 39211.

*Amite-Wilkinson Counties Medical Society*, 3rd Monday, March, June, September, December. James S. Poole, Secy., The Gloster Clinic, Gloster 39638. Counties: Amite, Wilkinson.

*Central Medical Society*, 1st Tuesday, February, April, October, December, 6:30 p.m., Primos Northgate Restaurant, Jackson. Patsy Douglas, Executive Secy., B6 Medical Arts Bldg., 1151 N. State St., Jackson 39201. Counties: Hinds, Leake, Madison, Rankin, Scott, Simpson.

*Claiborne County Medical Society*, 1st Tuesday, each month, 6:00 p.m., Claiborne County Hospital, Port Gibson. D. M. Segrest, Secy., P.O. Box 147, Port Gibson 39150. County: Claiborne.

*Clarksdale and Six Counties Medical Society*, 3rd Wednesday, April, and 1st Wednesday, November, 2:00 p.m., Clarksdale. Rodney Baine, Secy., 110 Yazoo Ave., Clarksdale 38614. Counties: Coahoma, Quitman, Tallahatchie, Tunica. *Coast Counties Medical Society*, January, May, and November. H. S. Barrett, Secy., P.O. Box 1810, Gulfport 39501. Counties: Hancock, Harrison, Stone.

*Delta Medical Society*, 2nd Wednesday, April and October. Walter H. Rose, Secy., 122 E. Baker St., Indianola 38751. Counties: Bolivar, Humphreys, Leflore, Sunflower, Washington, Yazoo.

*DeSoto County Medical Society*, 3rd Thursday, February and August, 1:00 p.m., Kenny's Restaurant, Hernando. Malcolm D. Baxter, Jr., Secy., Baxter Clinic, Hernando 38632. County: DeSoto.

*East Mississippi Medical Society*, 1st Tuesday, February, April, June, October, December. Charles L. Wilkinson, Secy., Mail: Ms. Jenkins, P.O. Box 4053, Meridian 39305. Counties: Clarke, Kemper, Lauderdale, Neshoba, Newton, Winston.

*Homochitto Valley Medical Society*, Meetings scheduled quarterly. Fred G. Emrich, Secy., P.O. Box 1488, Natchez 39120. Counties: Adams, Jefferson.

*North Central District Medical Society*, 3rd Wednesday, March, June, September, January. Charles S. Watras, 612 Summit St., Winona 38967. Counties: Attala, Carroll, Chickawaw, Holmes, Montgomery, Webster.

*Northeast Mississippi Medical Society*, 1st Thursday, March, June, September, December. Roger L. Lowery, Secy., 618 Pegram Dr., Tupelo 38801. Counties: Alcorn, Calhoun, Chickasaw, Itawamba, Lee, Monroe, Pontotoc, Prentiss, Tishomingo, Union.

*North Mississippi Medical Society*, 1st Thursday, April, September, December. Cherie Friedman, Secy., 424 South 5th, Oxford 38655. Counties: Benton, Lafayette, Marshall, Panola, Tate, Tippah, Yalobusha.

*Pearl River County Medical Society*, 2nd Monday, March, June, September, December. J. C. Griffing, Secy., Crosby Memorial Hospital, Picayune 39466. County: Pearl River.

*Prairie Medical Society*, 2nd Tuesday, March, June, September, December. Steve Parvin, Secy., 106 Strange Rd., Starkville 39759. Counties: Clay, Oktibbeha, Lowndes, Noxubee.

*Singing River Medical Society*, 3rd Monday, January, March, June, September, December. S. B. Fineberg, Secy., 2204 Old Mobile Hwy., Pascagoula 39567. County: Jackson.

*South Central Mississippi Medical Society*, 2nd Tuesday, March, June, September, December. Julian T. Janes, Secy., 304 Clark, McComb 39648. Counties: Copiah, Franklin, Lawrence, Lincoln, Pike, Walthall.

*South Mississippi Medical Society*, 2nd Thursday, March, June, September, December. Dan Jones, Secy., P.O. Box 2756, Laurel 39440. Counties: Covington, Forrest, George, Greene, Jasper, Jefferson Davis, Jones, Lamar, Marion, Perry, Smith, Wayne.

*West Mississippi Medical Society*, 2nd Tuesday, January, March, May, September, October, November, 6:30 p.m., Maxwell's Restaurant, Vicksburg. Martin E. Hinman, Secy., The Street Clinic, Vicksburg 39180. Counties: Issaquena, Sharkey, Warren.

### Mississippi Institutions and Organizations Accredited for Continuing Medical Education

The following Mississippi institutions and medical organizations have been accredited in accordance with the "Essentials for Accreditation of Institutions and Organizations Offering Continuing Medical Education Programs" of the Liaison Committee on Continuing Medical Education. Information concerning CME programs for physicians offered by these accredited sources may be obtained by writing the Director, Continuing Medical Education, at the individual institution or organization.

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Mississippi State Medical Association  
735 Riverside Drive  
Jackson, MS 39216

Mississippi Chapter  
American College of Surgeons  
Box 5229  
Jackson, MS 39216

North Mississippi Medical Center  
830 Gloster Avenue  
Tupelo, MS 38801

North Panola County Hospital  
Drawer 160  
Sardis, MS 38666

Forrest General Hospital  
Box 1897  
Hattiesburg, MS 39401

Singing River Hospital  
2809 Denny Avenue  
Pascagoula, MS 39567

Mississippi Baptist Hospital  
1225 N State Street  
Jackson, MS 39201

Magnolia Hospital  
Alcorn Drive  
Corinth, MS 38834

Gulf Coast Community Hospital  
4642 W. Beach Boulevard  
Biloxi, MS 39531

Greenwood Leflore Hospital  
1508 Leflore Avenue  
Greenwood, MS 38930

Jefferson Davis Memorial Hospital  
Box 1488  
Natchez, MS 39120

Gulfport Memorial Hospital  
4500 13th Street  
Gulfport, MS 39501

King's Daughter Hospital  
Box 948  
Brookhaven, MS 39061

Oxford-Lafayette County Hospital  
P.O. Box 946  
Oxford, MS 38655

Riverside Hospital  
Lakeland Drive  
Jackson, MS 39208

St. Dominic-Jackson Memorial Hospital  
969 Lakeland Dr.  
Jackson, MS 39216

Biloxi Regional Medical Center  
1559 Lafayette St.  
Biloxi, MS 39533

Jeff Anderson Regional Medical Center  
2124 14th St.  
Meridian, MS 39301

Northwest Mississippi Regional Medical Center  
Box 1218  
Clarksdale, MS 38614

## MEDICAL ORGANIZATION

### Dr. Ralph Brock Begins Term As MSMA President

Dr. Ralph L. Brock of McComb was inaugurated 1985-86 president of the MSMA during the 117th Annual Session, held last month in Biloxi. Dr. Brock succeeds Dr. Ellis M. Moffitt of Jackson in the association's highest post.

Installation of the new president concluded activities for the five-day annual session, which featured two sessions of the House of Delegates, two major scientific programs, and numerous specialty society meetings. The week's agenda also included dozens of special events.

In addition to hearing addresses by Dr. Moffitt and Dr. Joseph Boyle, president of the AMA, some 200 MSMA delegates voted for nominees to fill association offices. As a result of the elections, Dr. W. Joseph Burnett of Oxford will serve as 1985-86 president-elect. His inauguration as president will take place during MSMA's 118th Annual Session, June 4-8, 1986.

Dr. Brock, who has practiced in McComb since 1949, received his medical training at the University of Mississippi School of Medicine and Tulane University School of Medicine. He has long been active in professional organizations. He is a charter fellow of the American Academy of Family Physicians and charter diplomate of the American Board of Family Practice. He is a past president of the Mississippi Academy of Family Physicians, and received that organization's John B. Howell Memorial Award in 1983.

The new MSMA president has served as a member of the board of directors and executive committee of the Mississippi Foundation for Medical Care, and was also chairman of the MFMC board. Since 1980 he has been a member of the Board of Directors of Medical Assurance Company of Mississippi.

Dr. Brock served as a member of the MSMA's Committee on Maternal and Child Care and of the Council on Medical Education. He also served as a member of MSMA's Peer Review Committee, including four years as chairman. In 1975 he was named to the Physicians Advisory Committee of the Mississippi Medicaid Commission.

Formerly administrator of McComb Infirmary, Dr. Brock later was chief of the medical staff, Southwest Mississippi Regional Medical Center. Since 1972 he has been clinical instructor in family medicine at the University of Mississippi School of Medicine, and since 1982 has served as clinical assistant professor, Tulane University School of Medicine.

Dr. Brock, whose grandfather and father were country doctors in Washington Parish, Louisiana and in McComb, has been active in civic and community organizations. He is a member of the Board of Directors, McComb Chamber of Commerce. He has served as president of the Rotary Club, Parents League, and Pike County Arts Council. He is a ruling elder, Sunday School teacher, and choir member of J. J. White Memorial Presbyterian Church.

Dr. Brock and his wife, Billie, have two daughters — Brenda Leah, a medical technologist at University Medical Center in Jackson, and Nancy Louise, choral director of Aldine High School in Houston, Texas.



*Dr. and Mrs. Ralph L. Brock were photographed with their daughters Nancy (far right) and Brenda following Dr. Brock's installation as 1985-86 MSMA president.*

## NEW MEMBERS

CELENTANO, RICHARD D., Columbia. Born New York, NY, Sept. 3, 1950; M.D., Louisiana State University School of Medicine, Baton Rouge, 1976; interned and general surgery residency, same, 1977-81; elected by South Mississippi Medical Society.

BROOM, SARAH J., Jackson. Born Jackson, MS, July 3, 1953; M.D., University of Mississippi School of Medicine, Jackson, 1979; interned and internal medicine residency, same, 1979-82; fellowship, pulmonary diseases, same, 1982-84; elected by Central Medical Society.

FLYNT, JOEL RAY, Hattiesburg. Born Jackson, MS, Oct. 6, 1948; M.D., University of Mississippi School of Medicine, Jackson, 1975; interned and ob-gyn residency, Naval Regional Medical Center, Portsmouth, VA, 1975-79; elected by South Mississippi Medical Society.

JOHNSTON, WORD M., Mt. Olive. Born Galveston, TX, Sept. 10, 1955; M.D., University of Mississippi School of Medicine, Jackson, 1981; interned and family practice residency, Richland Memorial Hospital, Columbia SC, 1981-84; elected by South Mississippi Medical Society.

LAGARDE, MARIE C., Columbia. Born New Orleans, Feb. 17, 1950; M.D., Louisiana State University School of Medicine, New Orleans, 1975; interned and surgery residency, same, 1976-80; fellowship in trauma and physiology, same, 1980-81; elected by South Mississippi Medical Society.

MYERS, CLARA ANN, Jackson. Born Louisiana, Aug. 5, 1949; M.D., University of Mississippi School of Medicine, Jackson, 1979; interned and internal medicine residency, same, 1979-84; elected by Central Medical Society.

NORMAN, CAROLINE R., Jackson. Born San Diego, CA, Dec. 8, 1954; M.D., University of Mississippi School of Medicine, Jackson, 1981; interned and internal medicine residency, same, 1981-84; elected by Central Medical Society.

PARKER, JAMES LARRY, Jackson. Born Bastrop, LA, Sept. 25, 1944; M.D., University of Mississippi School of Medicine, Jackson, 1971; interned and neurology residency, University of Florida, Gainesville, 1971-72 and 1974-76; fellowship, neuro-ophthalmology, Bascom-Palmer Eye Institute,

Miami, FL, 1976-77; elected by Central Medical Society.

PHILLIPS, EDWARD K., Jackson. Born Walnut Ridge, AR, Feb. 6, 1952; M.D., University of Mississippi School of Medicine, Jackson, 1980; interned and radiology residency, Baylor University Medical Center, Dallas, 1980-84; elected by Central Medical Society.

RAST, PHILIP R., Brookhaven. Born Atlanta, GA, Jan. 29, 1949; M.D., Medical College of Georgia, Augusta, 1975; interned and surgery residency, Roanoke Memorial Hospital, Roanoke, VA, 1975-77; urology residency, Charlotte Memorial Hospital, Charlotte, NC, 1977-80; elected by South Central Medical Society.

RICHARDSON, DAVID D., JR., Jackson. Born Louisville, MS, Oct. 7, 1948; M.D., University of Mississippi School of Medicine, Jackson, 1979; interned one year, University of Alabama, Huntsville; elected by Central Medical Society.

SUBBARAO, GANTI V., Philadelphia. Born Madras, India, July 5, 1935; M.D., Andhra Medical College, Visakhapatnam, A. P. India, 1959; interned one year, King George Hospital, Visakhapatnam, India; surgery residency, Huron Road Hospital, Cleveland, OH, 1980-84; elected by East Mississippi Medical Society.

SUTTON, RICHARD O., JR., Brookhaven. Born Little Rock, AR, June 30, 1938; M.D., University of Tennessee Center for Health Sciences, Memphis, 1967; interned Beaumont Army Medical Center, El Paso, TX, one year; surgery residency, Reynolds Army Hospital, Ft. Sill, OK, 1968-69; orthopedic, surgery residency, Beaumont Army Medical Center, El Paso, 1971-73; fellowship, children's orthopedic surgery, Carrie Tingley Hospital, Truth or Consequences, NM, 1973-74; elected by South Central Medical Society.

VEERISETTY, INDIRA K., Ridgeland. Born India, Sept. 23, 1955; M.D., Government Medical College, Bellary Karnataka India, 1980; interned and medicine residency, University Medical Center, Jackson, MS, 1981-84; elected by Central Medical Society.

WILEY, THOMAS L., JR., Jackson. Born New Albany, MS, May 30, 1951; M.D., University of Mississippi School of Medicine, Jackson, 1977; interned and ob-gyn residency, University Medical Center, Jackson, MS, 1977-81; elected by Central Medical Society.

## MEDICO-LEGAL BRIEFS

(Continued from page 175)

### Next Month in JOURNAL MSMA

- Complete Report, 117th Annual Session
- "A Community Cancer Program Looks at Carcinoma of the Larynx"
- "Bat Rabies in Mississippi"
- "Procedures in Family Medicine: A Survey"

rimental effect" on the performance of his activities in the practice of medicine.

An appellate court reversed the trial court's judgment. The court concluded that the Commission could legally find that a physician's attempt to protect and preserve his professional reputation was conduct in his practice because his future practice might depend on his reputation.

On review, the highest state court said that although the physician's conduct was improper, it was not censurable. The court said that "immoral conduct" under law must occur in the performance of a physician's practice — in the diagnosis, care, or treatment of patients. The court vacated the reprimand. — *McDonnell v. Commission of Medical Discipline*, 483 A.2d 76 (Md.Ct. of App., Nov. 2, 1984)



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## PERSONALS

ORLANDO ANDY of UMC recently presented a paper to the medical staff at St. Barnabas Hospital in the Bronx, New York.

ROBERT BALL of UMC lectured on ventricular arrhythmias at the Valley Medical Society in Modesto, California.

GENE BARRETT of Jackson presented a paper at the Southern Orthopaedic Association meeting in St. Thomas, Virgin Islands, and also participated in a course at Kiawah Island, South Carolina.

DAVID BRUCE of UMC spoke at the New York University Board Review Course in March.

SAM CARUTHERS of Grenada announces his marriage in March to Mrs. Christine Chapman of Memphis.

WALLACE CONERLY of UMC was a site visitor to Baylor University in Houston, Texas, recently.

RICHARD A. CONN of Hattiesburg presented a paper at the American Academy of Orthopedic Surgeons in Las Vegas, and presented a paper at the Southern Orthopaedic Association meeting in St. Thomas, Virgin Islands.

EDGAR DRAPER of UMC was visiting professor at the Medical College of Georgia in Augusta.

DAVID L. DUGGER of Ocean Springs recently was elected a fellow of the American Academy of Pediatrics.

OWEN EVANS of UMC lectured at the University of Arkansas Medical Center in Little Rock in April.

LUTHER FISHER of UMC served as a volunteer teacher at the Addis Ababa University in Ethiopia during April.

CLAUDE EARL FOX of Jackson has been named president-elect of the National Association for Maternal/Child Health and Crippled Children's Programs.

WALTER D. GUNN of Quitman has been recertified by the American Academy of Family Physicians.

JESSE ROBERT HIGHTOWER of Itta Bena was recognized by the Mississippi House of Representatives in April for the medical services he and his father provided for people in their area over an 86-year period.

PRENTISS F. KEYES of DeKalb has been recertified by the American Academy of Family Physicians.

EARL L. LARID of Union recently was chosen Union's Citizen of the Year for 1984.

JIM MARTIN of UMC was grand rounds speaker at the University of Louisville School of Medicine in Louisville, Kentucky.

PAUL MATHERNE of Biloxi has been recertified by the American Academy of Family Physicians.

MALCOLM MOORE of Tupelo has been recertified by the American Academy of Family Physicians.

PAUL MOORE of Pascagoula received the Contribution to Amateur Football Award presented by the University of Mississippi.

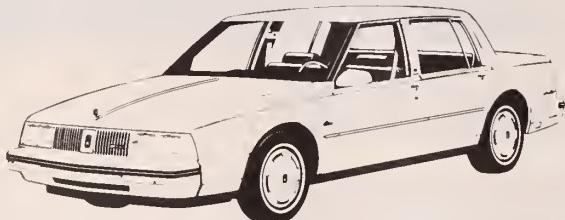
JOHN MORRISON of UMC was workshop coordinator and guest speaker at meetings in Lake Tahoe, Nevada and Steamboat Springs, Colorado.

JESSIE ROMA TAYLOR of Tupelo has been certified as a diplomate of the American Board of Emergency Medicine.

DAVID RAYMOND THOMAS of Jackson has been elected a fellow of the American College of Physicians.

MARION WOLFE of Bay St. Louis received the Contribution to Amateur Athlete Football Award presented by the Gulf Coast Chapter of the National Football Foundation and Hall of Fame.

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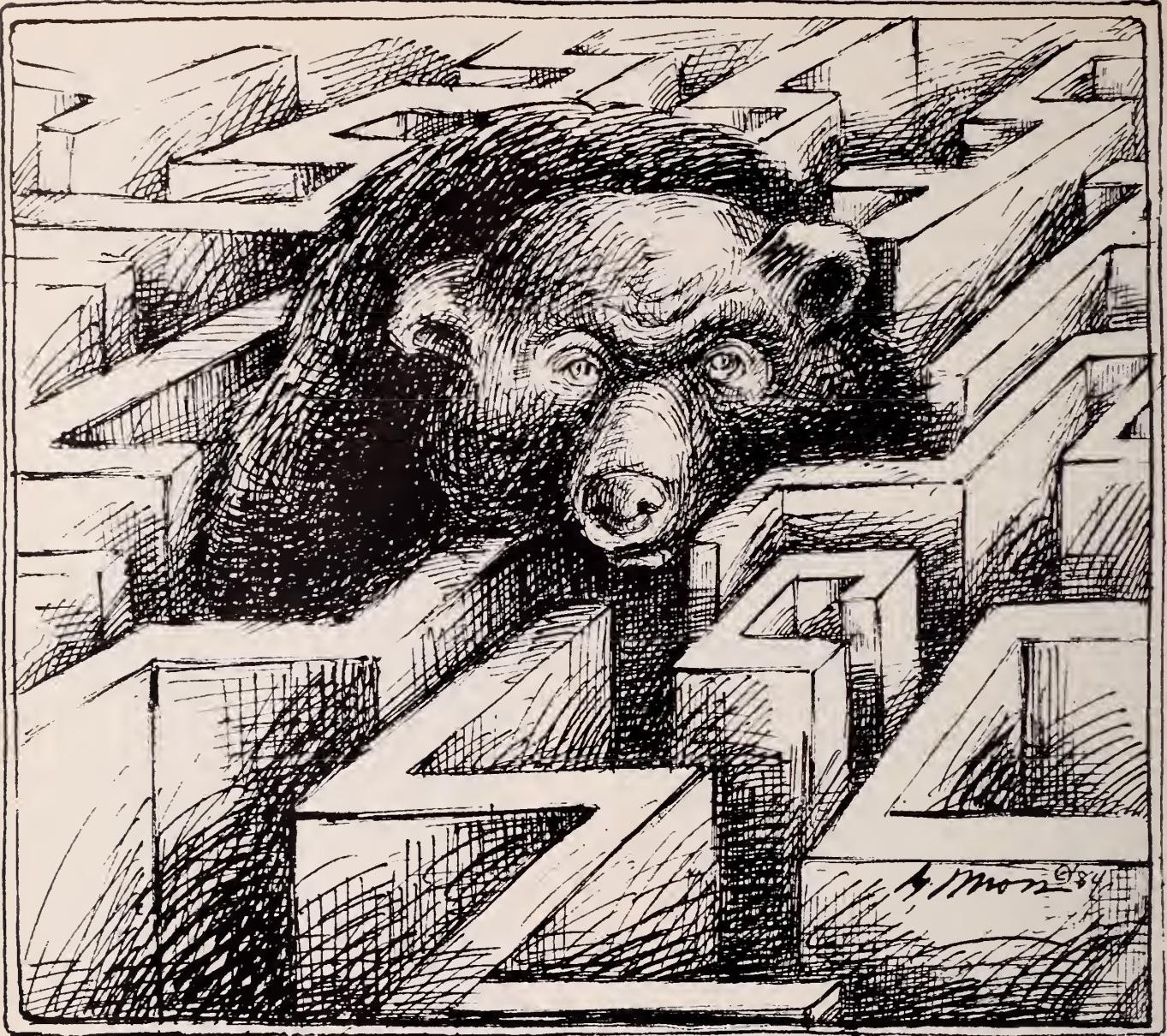
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## DEATHS

MELOAN, EVA L., Jackson. Born Memphis, April 23, 1914; M.D., University of Tennessee Center for Health Sciences, Memphis, 1936; interned Columbia Hospital, Columbia, SC, one year; pediatric residency, Children's Hospital, Chattanooga, TN, 1937-39; pediatric residency, Detroit Children's Hospital, Detroit, MI 1939-40; died April 16, 1985, age 70.

NELSON, HOWARD A., Greenwood. Born Tunica, MS, July 1, 1911; M.D., Tulane University School of Medicine, New Orleans, 1937; interned and family practice training, Employees Hospital, Fairfield, AL, 1937-40; died April 19, 1985, age 73.

ROWLETT, G. SAMUEL, JR., Vicksburg. Born Richmond, VA, Feb. 26, 1918; M.D., Medical College of Virginia, Commonwealth University School of Medicine, Richmond, 1943; interned Charity Hospital, Shreveport, LA, one year; surgery residency, same and Methodist Hospital, Dallas, 1945-48; orthopedic surgery residency, V. A. Hospital and Touro Infirmary, New Orleans; died April 8, 1985, age 67.

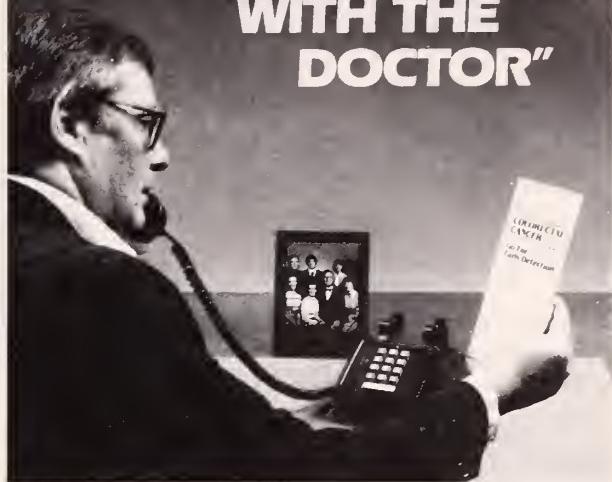
WESTERFIELD, JAMES A., Merigold. Born Columbia, MS, July 10, 1940; M.D., University of Tennessee Center for Health Sciences, Memphis, 1938; interned John Gaston Hospital, Memphis, one year; died April 5, 1985; age 72.

## RECOLLECTIONS

Twenty years ago JOURNAL MSMA reported the inauguration of Dr. Everett Crawford of Tylertown as MSMA president, succeeding Dr. Omar Simmonds of Newton. Dr. Crawford, who followed in his father's footsteps as association president, was installed at the 97th Annual Session, held in Biloxi. During that meeting Dr. J. T. Thompson of Moss Point was named president-elect.

Recipients of the 1965 Scientific Achievement Award were Drs. Frank H. Tucker, Jr., Dr. W. O. Barnett, and Dr. Ben Hilbun, for their exhibit entitled "Gastrointestinal Effect of Vagotomy."

## "I'D LIKE TO MAKE AN APPOINTMENT WITH THE DOCTOR"



Be prepared, Doctor. More patients will be asking about colorectal cancer. According to a survey\* conducted by the American Cancer Society, many people would like to receive more information about colorectal cancer, and 83% said they would want to be checked for it. Further, they are learning that this cancer can be detected *before* symptoms appear. The present cure rate is 44%. The cure rate *could* be as high as 75%, with early detection and appropriate management.

For asymptomatic persons the Society recommends annual digital rectal examination at age 40 and over; at age 50 and over, an annual stool blood test, as well as sigmoidoscopy every three to five years, following two initial annual negative sigmoidoscopies.

We're here to help. You can reach us at your local American Cancer Society office or write to our Professional Education Department at National Headquarters, 90 Park Avenue, New York, N.Y. 10016. Ask about the Society's Colorectal Check program of professional and public education for the early detection of colorectal cancer.



## PLACEMENT SERVICE

### Physicians Wanted

**CONSULTING PHYSICIANS.** Board eligible orthopedic and psychiatric consultants needed 25-30 hours per week for evaluation of Social Security disability claims. Positions available immediately. For additional information, please call Deborah Warriner, Medical Staff Coordinator, Disability Determination Services, (601) 923-2153.

**NEEDED IMMEDIATELY.** Board certified Ob-Gyn. For further details, contact Executive Director, Grenada County Hospital 960 Avent Drive, Grenada, MS 38901; (601) 226-8111.

**UROLOGIST, OB-GYN, OPHTHALMOLOGIST, ORTHOPEDIC** surgery (board eligible/certified). Ex-

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needed in West Central Alabama. OPPORTUNITIES FOR PHYSICIANS TO RECEIVE HELP WITH ESTABLISHING THEIR PRACTICE AND THEN OWN IT. Some practice locations very near Birmingham. Faculty appointment with Family Practice Center at University of Alabama in Tuscaloosa may be available for those qualified. *Options available of joining established practices or of working individually.* Salary \$50,000 to \$65,000 guaranteed until practice is self-sufficient. Generous fringe benefits include life, disability, health, retirement and malpractice insurance; two weeks continuing education; and three weeks annual leave. All equipment including X-Ray and lab, furniture, and supplies provided. ALL CLINIC EXPENSES COVERED. Management services including personnel, payroll, tax reports, and billing provided. If invited to visit, all expenses will be paid. All moving expenses covered. Please send C.V. to Frank Cochran, Health Development Corporation, P.O. Box 1486, Tuscaloosa, Alabama 35403, or call COLLECT (205) 758-7545 for more information.

cellent opportunities exist in a growing northeast Miss. community with a draw population of 42,000+. Modern, 125-bed hospital currently expanding to 157 beds. Excellent schools, churches, recreational/outdoor areas. Contact Administrator, UCGH, Highway 30 West, New Albany, MS 38652; (601) 534-7631.

**MISSISSIPPI, POSITIONS AVAILABLE.** Immediate/full-time positions available with well-established, growing emergency medical group staffing hospital emergency departments on a 24 hour basis and clinics providing continual medical care in Central and South Mississippi. Prefer residency-trained or experienced physicians with specialties in any of the following areas: emergency, family practice, internal, and industrial or occupational medicine interested in a career commitment. Attractive salary and benefit package. Career advancement. MEA, P.A. is a physician owned and managed medical group committed to the financial security and personal development of each physician member. For information contact: James L. Heflin, Ph.D., 1755 Lelia Drive, Suite 100, Jackson, MS. 39216-4883 or call (601) 366-6503.

### PHYSICIANS NEEDED

Mississippi Disability Determination Services has need of physicians to serve as consultants to medical examiners. This is a part-time position. The basic requirements are: 1) an unencumbered license to practice medicine in Mississippi and 2) facility in the English language. Those interested should call Deborah Warriner, Medical Staff Coordinator. WATS-1-800-962-2230, Extension 2153; Jackson, 922-6811, Ext. 2153.

Physicians (especially specialists such as ophthalmologists, pediatricians, orthopedists, neurologists, etc.) interested in performing consultative evaluations (according to Social Security guidelines) should contact one of the following Medical Relations Officers: Henry Klar (Ext. 2276) or Martina Mayfield (Ext. 2227).

The DDS now has a program available for medical society meetings and hospital staff meetings. The purpose of this program is to explain how the disability determination process works, its historical background, its basis in legality and its documentation requirements. Any group interested in this presentation should contact John S. Barr, M.D., Ext. 2277.

**EMERGENCY PHYSICIAN AND PRIMARY CARE:** We are looking for a career oriented physician to join our established and expanding group which includes two ambulatory care facilities and a family practice clinic. Full specialty backup, excellent salary and benefits, including pension plan and insurance, in a family-oriented community. Please send curriculum vitae to First Medical, Inc., P.O. Drawer 3047, Hattiesburg, MS 39401.

## Physicians Available

**FAMILY PRACTICE.** 1981 UMC graduate, residency trained, board certified; interested in partnership or group experience, primarily in Mississippi. Reply to: 1822 Laurel Street, Jackson, MS 39202 (601) 352-6629.

**ANESTHESIOLOGIST.** B.C. university-trained; 20 years experience; proficient in all types of anesthe-

sia; excellent credentials; Reply 4110-A, Chico Road, Pascagoula, MS 39567.

UMC GRADUATE completing residency in family practice in 1986 seeks small community practice in association with one or more physicians. Information on potential practice locations should be sent to Box A, c/o Journal MSMA, P.O. Box 5229, Jackson, MS 39216.

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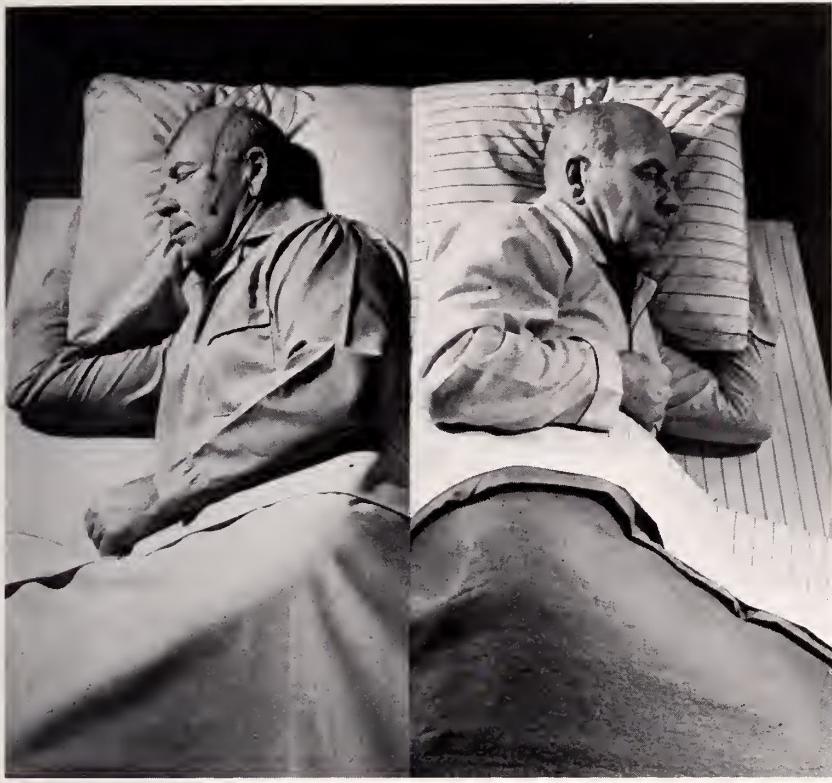
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**Contraindications:** Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patient to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

**Warnings:** Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

**Precautions:** In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

**Adverse Reactions:** Dizziness, drowsiness, light-headedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, e.g., excitement, stimulation and hyperactivity.

**Dosage:** Individualize for maximum beneficial effect.

**Adults:** 30 mg usual dosage; 15 mg may suffice in some patients. **Elderly or debilitated patients:** 15 mg recommended initially until response is determined.

**Supplied:** Capsules containing 15 mg or 30 mg flurazepam HCl.



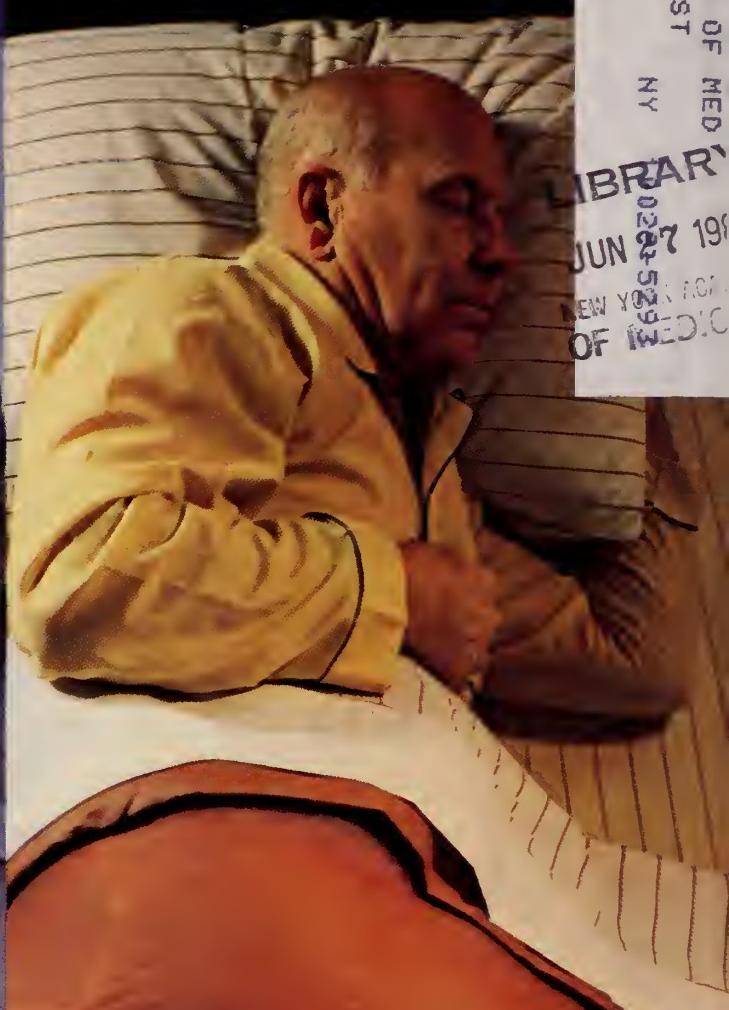
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See preceding page for references and summary of product information.

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# JOURNAL of the **MISSISSIPPI** State Medical Association

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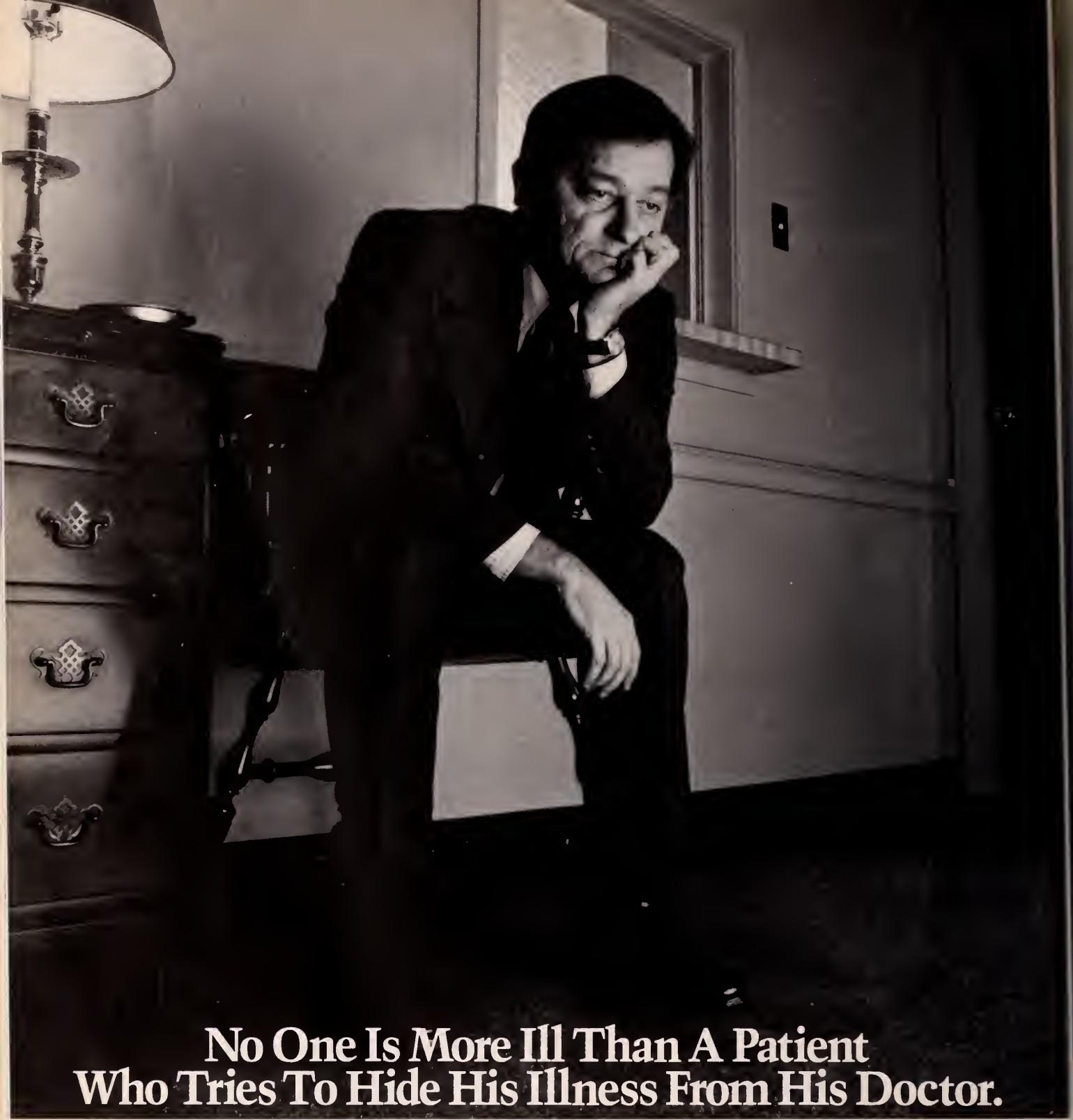
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# NEWSLETTER

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July 1985

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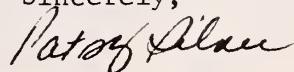
AMA's two-hour teleconference examining the professional liability crisis was presented at 357 hospital sites in 38 states. One of every five physicians now faces the prospect of a claim or a lawsuit, and defensive practices are estimated to add \$25 billion to the cost of health care each year. Cost of premiums increased by more than 80% between 1975 and 1983, and now approaches \$100,000 for some high-risk specialties. A 17-point action plan has been developed by the AMA, which calls for public education, legislative reform, coordinated defenses of claims, risk control and quality review. AMA is preparing model federal legislation that would provide incentives for states to enact tort reforms.

Many physicians across the country are altering their practices in the wake of increasing claims and rising liability insurance premiums. Nearly one-fourth of obstetricians responding to a California Medical Association survey said they had stopped delivering babies and more than one-fifth said they no longer provided any obstetric care. In New York, physicians in three specialties are under investigation for possible federal antitrust violations. In that state large numbers of obstetricians, orthopedic surgeons and neurosurgeons have discontinued high-risk care. The physicians faced a 55% increase in malpractice premium rates retroactively from July 1984 to July 1985, and were told to expect another 30-40% increase - a doubling of premiums in one year.

Educational debt load of medical school graduates, which averaged \$21,700 for those graduating in 1982, is higher than that of lawyers, MBAs, and PhDs, the AMA Center for Health Policy Research reports. The average graduating medical student has a debt load that is equivalent to 147% of what he will be paid as a first-year resident. Accumulated educational debt of law graduates, business graduates, and graduates of doctorate programs represents 70%, 42%, and 43% of first-year salaries, respectively.

"A Physician's Guide to Preferred Provider Organizations" is the title of an excellent booklet on PPOs which has been prepared by the AMA and is being made available to MSMA members. Call the MSMA headquarters in Jackson to request a copy.

Sincerely,



Patsy Silver  
Managing Editor

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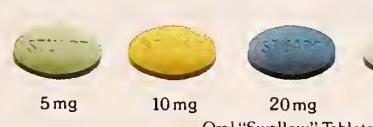
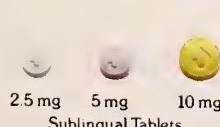
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Please consult full prescribing information before use. A summary follows:

**INDICATIONS AND USAGE:** SORBITRATE (isosorbide dinitrate) is indicated for the treatment and prevention of angina pectoris. All dosage forms of isosorbide dinitrate may be used prophylactically to decrease frequency and severity of anginal attacks and can be expected to decrease the need for sublingual nitroglycerin.

The sublingual and chewable forms of the drug are indicated for acute prophylaxis of angina pectoris when taken a few minutes before situations likely to provoke anginal attacks. Because of a slower onset of effect, the oral forms of isosorbide dinitrate are not indicated for acute prophylaxis.

**CONTRAINDICATIONS:** SORBITRATE is contraindicated in patients who have shown purported hypersensitivity or idiosyncrasy to it or other nitrates or nitrites. Epinephrine and related compounds are ineffective in reversing the severe hypotensive events associated with overdose and are contraindicated in this situation.

**WARNINGS:** The benefits of SORBITRATE during the early days of an acute myocardial infarction have not been established. If one elects to use organic nitrates in early infarction, hemodynamic monitoring and frequent clinical assessment should be used because of the potential deleterious effects of hypotension.

**PRECAUTIONS: General:** Severe hypotensive response, particularly with upright posture, may occur with even small doses of SORBITRATE. The drug should therefore be used with caution in subjects who may have blood volume depletion from diuretic therapy or in subjects who have low systolic blood pressure (e.g., below 90 mmHg). Paradoxical bradycardia and increased angina pectoris may accompany nitrate-induced hypotension. Nitrate therapy may aggravate the angina caused by hypertrophic cardiomyopathy.

Marked symptomatic orthostatic hypotension has been reported when calcium channel blockers and organic nitrates were used in combination. Dose adjustment of either class of agents may be necessary.

Tolerance to this drug and cross-tolerance to other nitrates and nitrites may occur. Tolerance to the vascular and antianginal effects of isosorbide dinitrate or nitroglycerin has been demonstrated in clinical trials, experience through occupational exposure, and in isolated tissue experiments in the laboratory. The importance of tolerance to the appropriate use of isosorbide dinitrate in the management of patients with angina pectoris has not been determined. However, one clinical trial using treadmill exercise tolerance (as an end point) found an 8-hour duration of action of oral isosorbide dinitrate following the first dose (after a 2-week placebo washout) and only a 2-hour duration of effect of the same dose after 1 week of repetitive dosing at conventional dosing intervals. On the other hand, several trials have been able to differentiate isosorbide dinitrate from placebo after 4 weeks of therapy and, in open trials, an effect seems detectable for as long as several months.

Tolerance clearly occurs in industrial workers continuously exposed to nitroglycerin.

Moreover, physical dependence also occurs since chest pain, acute myocardial infarction, and even sudden death have occurred during temporary withdrawal of nitroglycerin from the workers. In clinical trials in angina patients, there are reports of anginal attacks being more easily provoked and of rebound in the hemodynamic effects soon after nitrate withdrawal. The relative importance of these observations to the routine, clinical use of isosorbide dinitrate is not known. However, it seems prudent to gradually withdraw patients from isosorbide dinitrate when the therapy is being terminated, rather than stopping the drug abruptly.

**Information for Patients:** Headache may occur during initial therapy with SORBITRATE. Headache is usually relieved by the use of standard headache remedies or by lowering the dose and tends to disappear after the first week or two of use.

**Drug Interactions:** Alcohol may enhance any marked sensitivity to the hypotensive effect of nitrates.

Iosorbide dinitrate acts directly on vascular smooth muscle; therefore, any other agent that depends on vascular smooth muscle as the final common path can be expected to have decreased or increased effect depending on the agent.

**Carcinogenesis, Mutagenesis, Impairment of Fertility:** No long-term studies in animals have been performed to evaluate the carcinogenic potential of this drug. A modified two-litter reproduction study in rats fed isosorbide dinitrate at 25 or 100 mg/kg/day did not reveal any effects on fertility or gestation or any remarkable gross pathology in any parent or offspring fed isosorbide dinitrate as compared with rats fed a basal-controlled diet.

**Pregnancy Category C:** Isosorbide dinitrate has been shown to cause a dose-related increase in embryotoxicity (increase in mummified pups) in rabbits at oral doses 35 and 150 times the maximum recommended human daily dose. There are no adequate and well-controlled studies in pregnant women. SORBITRATE should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

**Nursing Mothers:** It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when SORBITRATE is administered to a nursing woman.

**Pediatric Use:** The safety and effectiveness of SORBITRATE in children has not been established.

**ADVERSE REACTIONS:** Adverse reactions, particularly headache and hypotension, are dose-related. In clinical trials at various doses, the following have been observed:

Headache is the most common (reported incidence varies widely, apparently being dose related, with an average occurrence of about 25%) adverse reaction and may be severe and persistent. Cutaneous vasodilation with flushing may occur. Transient episodes of dizziness and weakness, as well as other signs of cerebral ischemia associated with postural hypotension, may occasionally develop (the incidence of reported symptomatic hypotension ranges from 2% to 36%). An occasional individual will exhibit marked sensitivity to the hypotensive effects of nitrates and severe responses (nausea, vomiting, weakness, restlessness, pallor, perspiration, and collapse) may occur even with the usual therapeutic dose. Drug rash and/or exfoliative dermatitis may occasionally occur. Nausea and vomiting appear to be uncommon. Case reports of clinically significant methemoglobinemia are rare at conventional doses of organic nitrates. The formation of methemoglobin is dose-related and, in the case of genetic abnormalities of hemoglobin that favor methemoglobin formation, even conventional doses of organic nitrate could produce harmful concentrations of methemoglobin.

**DOSAGE AND ADMINISTRATION:** For the treatment of angina pectoris, the usual starting dose for sublingual SORBITRATE is 2.5 to 5 mg, for chewable tablets, 5 mg, for oral (swallowed) tablets, 5 to 20 mg, and for controlled-release forms, 40 mg.

SORBITRATE should be titrated upward until angina is relieved or side effects limit the dose. In ambulatory patients, the magnitude of the incremental dose increase should be guided by measurements of standing blood pressure.

The initial dosage of sublingual or chewable SORBITRATE for prophylactic therapy in angina pectoris patients is generally 5 or 10 mg every 2 to 3 hours. Adequate controlled clinical studies demonstrating the effectiveness of chronic maintenance therapy with these dosage forms have not been reported.

SORBITRATE in oral doses of 10 to 40 mg given every 6 hours or in oral controlled release doses of 40 to 80 mg given every 8 to 12 hours is generally recommended. The extent to which development of tolerance should modify the dosage program has not been defined. The oral controlled-release forms of isosorbide dinitrate should not be chewed.

**DOSAGE FORMS AVAILABLE:** Sublingual Tablets (2.5, 5, 10 mg); Chewable Tablets (5, 10 mg); Oral Tablets (5, 10, 20, 30, 40 mg); Sustained Action Tablets (40 mg).

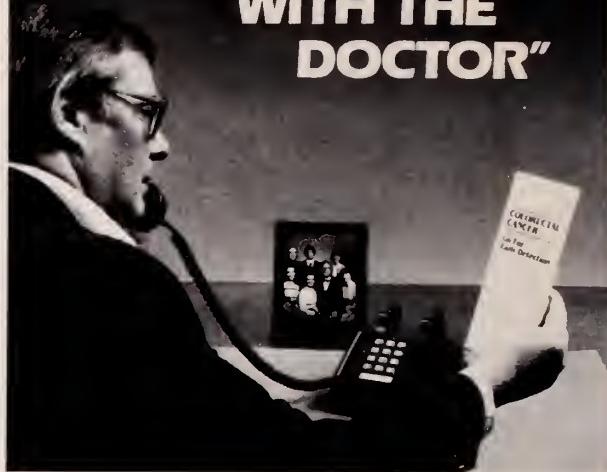


STUART PHARMACEUTICALS

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STR-2282

## "I'D LIKE TO MAKE AN APPOINTMENT WITH THE DOCTOR"



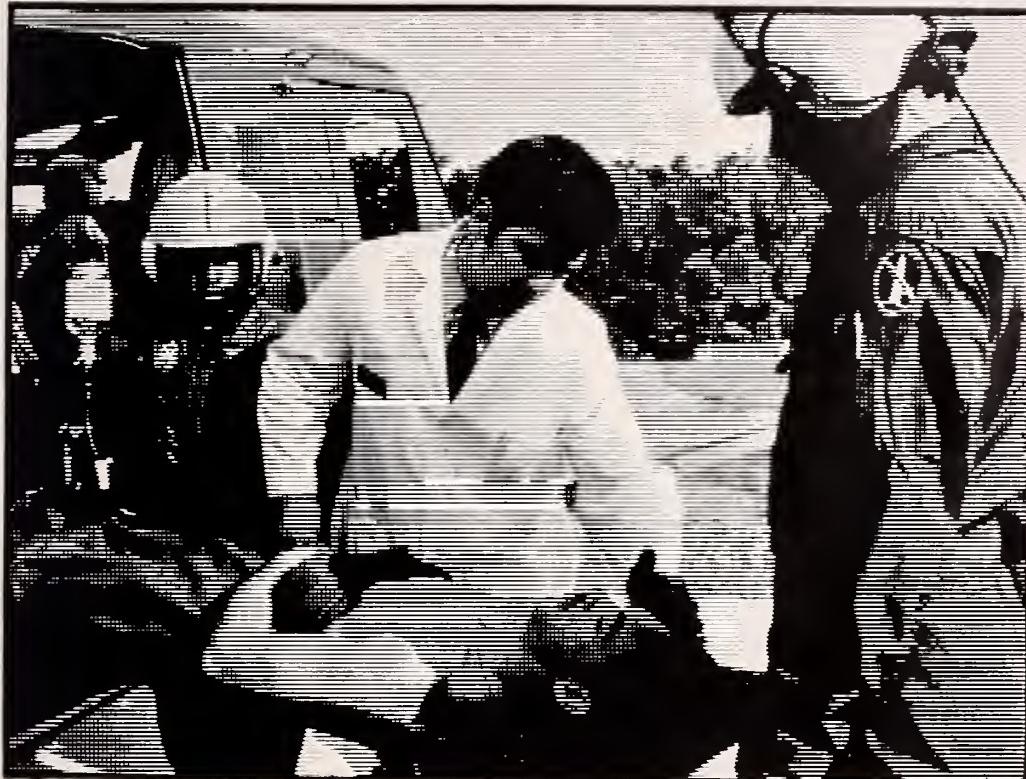
Be prepared, Doctor. More patients will be asking about colorectal cancer. According to a survey\* conducted by the American Cancer Society, many people would like to receive more information about colorectal cancer, and 83% said they would want to be checked for it. Further, they are learning that this cancer can be detected *before* symptoms appear. The present cure rate is 44%. The cure rate *could* be as high as 75%, with early detection and appropriate management.

For asymptomatic persons the Society recommends annual digital rectal examination at age 40 and over; at age 50 and over, an annual stool blood test, as well as sigmoidoscopy every three to five years, following two initial annual negative sigmoidoscopies.

We're here to help. You can reach us at your local American Cancer Society office or write to our Professional Education Department at National Headquarters, 90 Park Avenue, New York, N.Y. 10016. Ask about the Society's Colorectal Check program of professional and public education for the early detection of colorectal cancer.

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# **PHYSICIANS, A WEEKEND WITH THE RESERVE ISN'T JUST ANOTHER DAY AT THE OFFICE.**



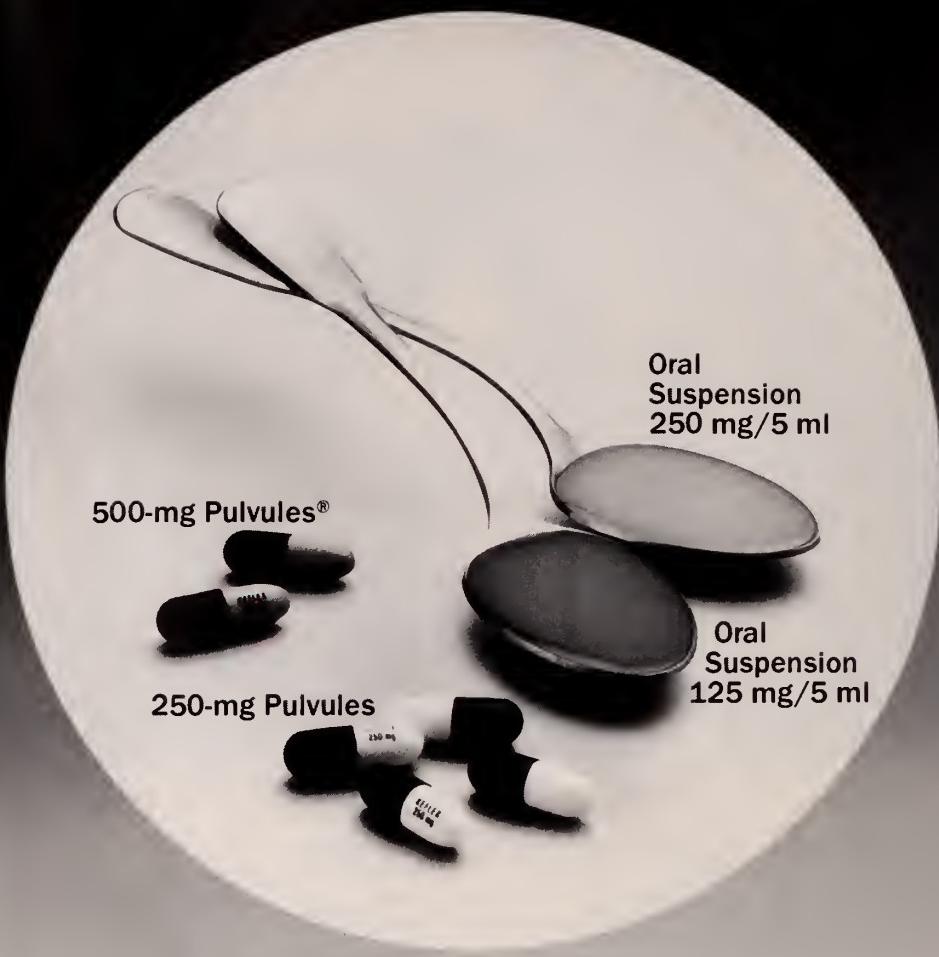
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# DATELINE

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## Growing Physician Approval of HMOs

Chicago, IL - A growing number of physicians (50%) now have a favorable attitude toward HMOs, although most still think traditional fee-for-service medicine offers higher quality care. A recent Louis Harris survey reported the increasing approval. This contrasts with earlier studies which found in 1980-81 that only 36% of physicians were favorable toward HMOs. About 9% of privately-insured American families now have an HMO member.

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## AMA Loses Bid For Super-PRO Contract

Chicago, IL - The AMA's bid to function as a super-PRO, submitting assessment reports of each PRO, has been rejected. The AMA was notified that its proposal was "not within the competitive range, price, and other factors considered." AMA expects to continue to oversee the PROs through its own monitoring programs, however. Funding cuts apparently forced HCFA to scale down expectations for the super-PRO.

---

## Corporate Managers Slowed Health Costs

Chicago, IL - Corporate managers believe they have slowed the increase in health care costs during the past three years, according to a Louis Harris survey which found that more than 70% of companies made changes in their health insurance plans and achieved 16% to 18% lower costs per employee. Among cost-containment initiatives were second opinions, HMOs, preadmission review, utilization review, increased deductibles, and PPOs.

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## Alzheimer's Disease Bill Introduced

Washington, DC - A California congressman has proposed the Comprehensive Alzheimer's Assistance, Research and Education Act (CARE) as a way of easing the burden of the disease on its victims and their families. The bill proposes to establish a national education program, create model state programs to educate the public and offer support, and expand federal research into causes, prevention, and treatment of the disease.

---

## Patient Visits Showing Decrease

Chicago, IL - Although total patient care hours are rising (1.8% over the previous year), the number of patient visits is declining (down 6.6%), according to data from the AMA's Socioeconomic Monitoring System. On a regional basis, total patient visits fell most sharply in the South (down 9.1%), but time spent with patients during office visits rose greatest in the South (7.6%).

---

# Roche salutes MISSISSIPPI MEDICINE TODAY

## Na<sup>+</sup>-K<sup>+</sup> balancing act

"The sodium-potassium ratio in the diet should be considered a major controlling factor of blood pressure," says Dr. Herbert G. Langford of Jackson's University of Mississippi Medical Center.<sup>1</sup> Among cultures with a low incidence of hypertension, the diet consists of little sodium and large amounts of potassium from fruits and vegetables. As sodium intake increased in modern civilizations, potassium decreased. Dr. Langford thinks that low potassium may be considered an "unindicted co-conspirator in the hypertension crime." And he speculates that "efforts to increase potassium intake may be as feasible and fruitful as efforts to decrease our sodium intake."

## Cartoon classics—help for pain

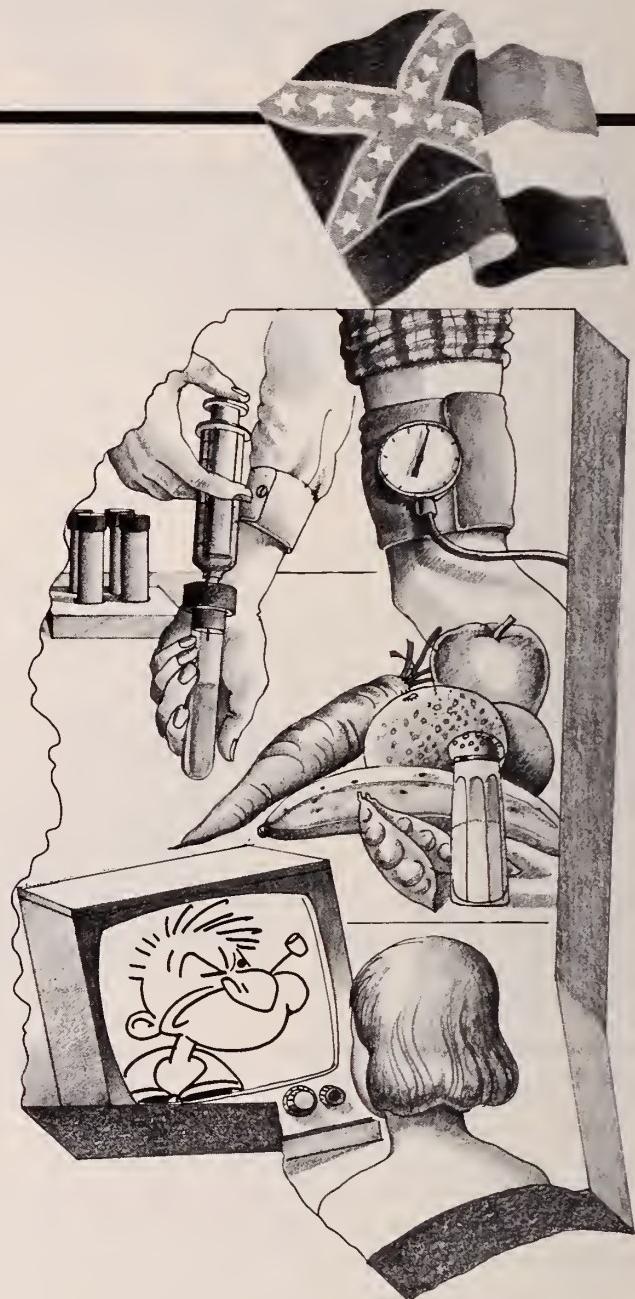
The hospitalized burned child, forced to cope with isolation, immobilization, extreme pain and disfigurement, manifests severe behavior problems during treatment. One of the most difficult management problems is with the child who must endure the excruciating pain involved in the open treatment of burns. The procedure, used for second-degree burns, involves exposure of the wounds, removal of burned skin and daily coverage with antibiotics. In order to avoid treatment, the child may scream, thrash about, cry and complain of pain—which generally worsens with time as nerve endings heal and sensation returns. Even experienced health-care workers have become faint while observing the suffering of these young patients.

Dr. Ronald S. Drabman and his colleagues in the Division of Psychology of the Department of Psychiatry and Human Behavior of the University of Mississippi Medical Center have tested a multicompartment behavioral approach for reducing pain behavior exhibited by severely burned children during the open treatment procedure.<sup>2</sup> The children, two young girls, were asked to choose a television cartoon program, either "Popeye" or "Bugs Bunny," and watch it closely during treatment. If there was a 25% or more reduction in pain behavior from the level at baseline sessions, the child was rewarded with a star placed on her chart. Both children exhibited less pain behavior during experimental sessions than during baseline sessions.

In keeping with ethical considerations and the appropriateness of the children's reaction to pain, the goal of the study was not to suppress or eliminate pain behavior completely. The researchers believe that their successful distraction-and-reward technique, the first experimental evaluation of behavior during open treatment, will point the way to much-needed clinical research in this area.

## 15-minute diagnosis of killer infection

Spontaneous bacterial peritonitis, a common and usually fatal infection among alcoholic cirrhotic patients, can now be



recognized in 15 minutes by means of a simple assay of ascitic fluid. Dr. James L. Achard and his University of Mississippi colleagues routinely screen cirrhotics for high lactic acid. This is more sensitive than conventional WBC counts and avoids many false positives. And, says Dr. Achard, most hospital labs are already equipped to do the test for one dollar.<sup>3</sup>

**References:** 1. Medical News. JAMA 248:2951, Dec 10, 1982. 2. Kelley ML, et al: J Appl Behav Anal 17:147-158, Summer 1984. 3. Medical World News, Nov 22, 1982, p. 15.



# TODAY: FOR THE PATIENT WITH MIXED DEPRESSION AND ANXIETY

A rational approach, combining

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amitriptyline
- The proven anxiolytic action of  
Librium® (chlordiazepoxide HCl/Roche)®

Marked improvement often occurs as early as the first week

Headache, insomnia or GI upsets associated with mixed depression and anxiety often respond quickly

Feeling better, patients feel encouraged to stay the course—therefore, fewer dropouts:  $P = .006$  compared to amitriptyline\*

Convenient single h.s. dosing sufficient in some patients; helps patients with mixed depression and anxiety sleep through the night. Patients should be cautioned about the combined effects of Limbitrol with alcohol and other CNS depressants, and about activities requiring complete mental alertness such as operating machinery or driving a car.

In moderate depression and anxiety

IN PLACE OF  
LIMBITROL 5-12.5 WRITE:

**Limbitrol®**

Each tablet contains 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)

IV

IN PLACE OF  
LIMBITROL 10-25 WRITE:

**Limbitrol DS®**

Each tablet contains 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt)

IV

Easier to remember... easier to prescribe

\*Feighner JP, et al: *Psychopharmacology* 61:217-225, Mar 22, 1979.

Please see summary of product information on following page.

**LIMBITROL® @ Tranquillizer-Antidepressant**

Before prescribing, please consult complete product information, a summary of which follows:

**Indications:** Relief of moderate to severe depression associated with moderate to severe anxiety.

**Contraindications:** Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use, then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

**Warnings:** Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients. (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

**Usage in Pregnancy:** Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage, withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).

**Precautions:** Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated; sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ototoxicity, oversedation, confusion or anticholinergic effects.

**Adverse Reactions:** Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bleeding. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs:

**Cardiovascular:** Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.

**Psychiatric:** Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

**Neurologic:** Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.

**Anticholinergic:** Disturbance of accommodation, paralytic ileus, urinary retention, dilation of urinary tract.

**Allergic:** Skin rash, urticaria, photosensitization, edema of face and tongue, pruritis.

**Hematologic:** Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

**Gastrointestinal:** Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.

**Endocrine:** Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female, elevation and lowering of blood sugar levels, and syndrome of inappropriate ADH (antidiuretic hormone) secretion.

**Other:** Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.

**Overdosage:** Immediately hospitalize patient suspected of having taken on overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

**Dosage:** Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single h.s. dose may suffice for some patients. Lower dosages are recommended for the elderly.

Limbitrol DS (double strength) Tablets, initial dosage of three or four tablets daily in divided doses, increased up to six tablets or decreased to two tablets daily as required. Limbitrol Tablets, initial dosage of three or four tablets daily in divided doses, for patients who do not tolerate higher doses.

**How Supplied:** Double strength (DS) Tablets, white, film-coated, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt), and Tablets, blue, film-coated, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 50.



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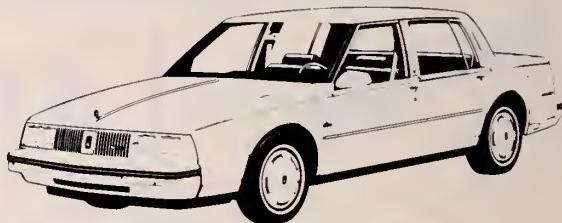
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Once-daily INDERAL LA  
(propranolol HCl) for  
smooth blood pressure  
control without the  
potassium problems  
of diuretics

Once-daily INDERAL LA (propranolol HCl) avoids the risk of diuretic-induced ECG abnormalities due to hypokalemia.<sup>1</sup> In addition, INDERAL LA preserves potassium balance without additive agents or supplements while providing simple, well-tolerated therapy with broad cardiovascular benefits.

Once-daily INDERAL LA  
for the cardiovascular  
benefits of the world's  
leading beta blocker

Simply start with 80 mg once daily. Dosage may be increased to 120 mg to 160 mg once daily as needed to achieve additional control.

Like conventional INDERAL tablets, INDERAL LA should not be used in the presence of congestive heart failure, sinus bradycardia, heart block greater than first degree, and bronchial asthma.

For beta-1/beta-2 blockade **Once-daily  
INDERAL<sup>®</sup> LA**  
(PROPRANOLOL HCl) LONG ACTING CAPSULES



The appearance of these capsules is a registered trademark of Averst Laboratories.

Please see brief summary of prescribing information on the next page for further details.

**Once-daily  
For beta-1/beta-2  
blockade** **INDERAL® LA**  
**(PROPRANOLOL HCl)** LONG ACTING CAPSULES

BRIEF SUMMARY (FOR FULL PRESCRIBING INFORMATION, SEE PACKAGE CIRCULAR)  
**INDERAL® LA** brand of propranolol hydrochloride (**Long Acting Capsules**)

**DESCRIPTION.** Inderal LA is formulated to provide a sustained release of propranolol hydrochloride. Inderal LA is available as 80 mg, 120 mg, and 160 mg capsules.

**CLINICAL PHARMACOLOGY.** Inderal is a nonselective beta-adrenergic receptor blocking agent possessing no other autonomic nervous system activity. It specifically competes with beta-adrenergic receptor stimulating agents for available receptor sites. When access to beta-receptor sites is blocked by Inderal, the chronotropic, inotropic, and vasodilator responses to beta-adrenergic stimulation are decreased proportionately.

Inderal LA Capsules (80, 120, and 160 mg) release propranolol HCl at a controlled and predictable rate. Peak blood levels following dosing with Inderal LA occur at about 6 hours and the apparent plasma half-life is about 10 hours. When measured at steady state over a 24-hour period the areas under the propranolol plasma concentration-time curve (AUCs) for the capsules are approximately 60% to 65% of the AUCs for a comparable divided daily dose of Inderal tablets. The lower AUCs for the capsules are due to greater hepatic metabolism of propranolol, resulting from the slower rate of absorption of propranolol. Over a twenty-four (24) hour period, blood levels are fairly constant for about twelve (12) hours then decline exponentially.

Inderal LA should not be considered a simple mg for mg substitute for conventional propranolol and the blood levels achieved do not match (are lower than) those of two to four times daily dosing with the same dose. When changing to Inderal LA from conventional propranolol, a possible need for retitration upwards should be considered especially to maintain effectiveness at the end of the dosing interval. In most clinical settings, however, such as hypertension or angina where there is little correlation between plasma levels and clinical effect, Inderal LA has been therapeutically equivalent to the same mg dose of conventional Inderal as assessed by 24-hour effects on blood pressure and on 24-hour exercise responses of heart rate, systolic pressure and rate pressure product. Inderal LA can provide effective beta blockade for a 24-hour period.

The mechanism of the antihypertensive effect of Inderal has not been established. Among the factors that may be involved in contributing to the antihypertensive action are (1) decreased cardiac output, (2) inhibition of renin release by the kidneys, and (3) diminution of tonic sympathetic nerve outflow from vasomotor centers in the brain. Although total peripheral resistance may increase initially, it readjusts to or below the pretreatment level with chronic use. Effects on plasma volume appear to be minor and somewhat variable. Inderal has been shown to cause a small increase in serum potassium concentration when used in the treatment of hypertensive patients.

In angina pectoris, propranolol generally reduces the oxygen requirement of the heart at any given level of effort by blocking the catecholamine-induced increases in the heart rate, systolic blood pressure, and the velocity and extent of myocardial contraction. Propranolol may increase oxygen requirements by increasing left ventricular fiber length, end diastolic pressure and systolic ejection period. The net physiologic effect of beta-adrenergic blockade is usually advantageous and is manifested during exercise by delayed onset of pain and increased work capacity.

In dosages greater than required for beta blockade, Inderal also exerts a quinidine-like or anesthetic-like membrane action which affects the cardiac action potential. The significance of the membrane action in the treatment of arrhythmias is uncertain.

The mechanism of the antimigraine effect of propranolol has not been established. Beta-adrenergic receptors have been demonstrated in the pial vessels of the brain.

Beta receptor blockade can be useful in conditions in which, because of pathologic or functional changes, sympathetic activity is detrimental to the patient. But there are also situations in which sympathetic stimulation is vital. For example, in patients with severely damaged hearts, adequate ventricular function is maintained by virtue of sympathetic drive which should be preserved. In the presence of AV block, greater than first degree, beta blockade may prevent the necessary facilitating effect of sympathetic activity on conduction. Beta blockade results in bronchial constriction by interfering with adrenergic bronchodilator activity which should be preserved in patients subject to bronchospasm.

Propranolol is not significantly dialyzable.

**INDICATIONS AND USAGE.** **Hypertension:** Inderal LA is indicated in the management of hypertension; it may be used alone or used in combination with other antihypertensive agents, particularly a thiazide diuretic. Inderal LA is not indicated in the management of hypertensive emergencies.

**Angina Pectoris Due to Coronary Atherosclerosis:** Inderal LA is indicated for the long-term management of patients with angina pectoris.

**Migraines:** Inderal LA is indicated for the prophylaxis of common migraine headache. The efficacy of propranolol in the treatment of a migraine attack that has started has not been established and propranolol is not indicated for such use.

**Hypertrophic Subaortic Stenosis:** Inderal LA is useful in the management of hypertrophic subaortic stenosis, especially for treatment of exertional or other stress-induced angina, palpitations, and syncope. Inderal LA also improves exercise performance. The effectiveness of propranolol hydrochloride in this disease appears to be due to a reduction of the elevated outflow pressure gradient which is exacerbated by beta-receptor stimulation. Clinical improvement may be temporary.

**CONTRAINDICATIONS.** Inderal is contraindicated in 1) cardiogenic shock, 2) sinus bradycardia and greater than first degree block, 3) bronchial asthma, 4) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythmia treatable with Inderal.

**WARNINGS.** **CARDIAC FAILURE.** Sympathetic stimulation may be a vital component supporting circulatory function in patients with congestive heart failure, and its inhibition by beta blockade may precipitate more severe failure. Although beta blockers should be avoided in overt congestive heart failure, if necessary, they can be used with close follow-up in patients with a history of failure who are well compensated and are receiving digitalis and diuretics. Beta-adrenergic blocking agents do not abolish the inotropic action of digitalis on heart muscle.

IN PATIENTS WITHOUT A HISTORY OF HEART FAILURE, continued use of beta blockers can, in some cases, lead to cardiac failure. Therefore, at the first sign or symptom of heart failure, the patient should be digitalized and/or treated with diuretics, and the response observed closely; if Inderal should be discontinued (gradually, if possible).

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and in some cases, myocardial infarction, following abrupt discontinuance of Inderal therapy. Therefore, when discontinuance of Inderal is planned the dosage should be gradually reduced over at least a few weeks, and the patient should be cautioned against interruption or cessation of therapy without the physician's advice. If Inderal therapy is interrupted and exacerbation of angina occurs, it usually is advisable to reinstitute Inderal therapy and take other measures appropriate for the management of unstable angina pectoris. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease who are given propranolol for other indications.

**Nonallergic Bronchospasm (e.g., chronic bronchitis, emphysema)—** PATIENTS WITH BRONCHOSPASTIC DISEASES SHOULD IN GENERAL NOT RECEIVE BETA BLOCKERS. Inderal should be administered with caution since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of beta receptors.

**MAJOR SURGERY.** The necessity or desirability of withdrawal of beta-blocking therapy prior to major surgery is controversial. It should be noted, however, that the impaired ability of the heart to respond to reflex adrenergic stimuli may augment the risks of general anesthesia and surgical procedures.



The appearance of these capsules is a registered trademark of Ayerst Laboratories

INDERAL (propranolol HCl), like other beta blockers, is a competitive inhibitor of beta-receptor agonists and its effects can be reversed by administration of such agents, e.g. dobutamine or isoproterenol. However, such patients may be subject to protracted severe hypotension. Difficulty in starting and maintaining the heartbeat has also been reported with beta blockers.

**DIABETES AND HYPOGLYCEMIA.** Beta-adrenergic blockade may prevent the appearance of certain premonitory signs and symptoms (pulse rate and pressure changes) of acute hypoglycemia in labile insulin-dependent diabetes. In these patients, it may be more difficult to adjust the dosage of insulin.

**HYPERTOXICOSIS.** Beta blockade may mask certain clinical signs of hyperthyroidism. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. Propranolol does not distort thyroid function tests.

**IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME.** several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case this resulted after an initial dose of 5 mg propranolol.

**PRECAUTIONS.** General. Propranolol should be used with caution in patients with impaired hepatic or renal function. Inderal (propranolol HCl) is not indicated for the treatment of hypertensive emergencies.

Beta adrenoceptor blockade can cause reduction of intraocular pressure. Patients should be told that Inderal may interfere with the glaucoma screening test. Withdrawal may lead to a return of increased intraocular pressure.

**Clinical Laboratory Tests.** Elevated blood urea levels in patients with severe heart disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase.

**DRUG INTERACTIONS.** Patients receiving catecholamine-depleting drugs such as reserpine should be closely observed if Inderal is administered. The added catecholamine-blocking action may produce an excessive reduction of resting sympathetic nervous activity which may result in hypotension, marked bradycardia, vertigo, syncopal attacks, or orthostatic hypotension.

**Carcinogenesis, Mutagenesis, Impairment of Fertility.** Long-term studies in animals have been conducted to evaluate toxic effects and carcinogenic potential. In 18-month studies in both rats and mice, employing doses up to 150 mg/kg/day, there was no evidence of significant drug-induced toxicity. There were no drug-related tumorigenic effects at any of the dosage levels. Reproductive studies in animals did not show any impairment of fertility that was attributable to the drug.

**Pregnancy.** Pregnancy Category C. Inderal has been shown to be embryotoxic in animal studies at doses about 10 times greater than the maximum recommended human dose.

There are no adequate and well-controlled studies in pregnant women. Inderal should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

**Nursing Mothers.** Inderal is excreted in human milk. Caution should be exercised when Inderal is administered to a nursing woman.

**Pediatric Use.** Safety and effectiveness in children have not been established.

**ADVERSE REACTIONS.** Most adverse effects have been mild and transient and have rarely required the withdrawal of therapy.

**Cardiovascular.** bradycardia, congestive heart failure, intensification of AV block, hypertension, paresthesia of hands, thrombocytopenic purpura, arterial insufficiency, usually of the Raynaud type.

**Central Nervous System.** lightheadedness, mental depression manifested by insomnia, lassitude, weakness, fatigue, reversible mental depression progressing to catatonia, visual disturbances, hallucinations, an acute reversible syndrome characterized by disorientation for time and place, short-term memory loss, emotional lability, slightly clouded sensorium, and decreased performance on neuropsychometrics.

**Gastrointestinal.** nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic colitis.

**Allergic.** pharyngitis and agranulocytosis, erythematous rash, fever combined with aching and sore throat, laryngospasm and respiratory distress.

**Respiratory.** bronchospasm

**Hematologic.** agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura.

**Auto-Immune.** In extremely rare instances, systemic lupus erythematosus has been reported.

**Miscellaneous.** alopecia, LE-like reactions, psoriasis, rashes, dry eyes, male impotence, and Peyronie's disease have been reported rarely. Oculomucocutaneous reactions involving the skin, serous membranes and conjunctivae reported for a beta blocker (practolol) have not been associated with propranolol.

**DOSAGE AND ADMINISTRATION.** Inderal LA provides propranolol hydrochloride in a sustained-release capsule for administration once daily. If patients are switched from Inderal tablets to Inderal LA capsules, care should be taken to assure that the desired therapeutic effect is maintained. Inderal LA should not be considered a simple mg for mg substitute for Inderal. Inderal LA has different kinetics and produces lower blood levels. Retitration may be necessary especially to maintain effectiveness at the end of the 24-hour dosing interval.

**HYPERTENSION—Dosage must be individualized.** The usual initial dosage is 80 mg Inderal LA once daily, whether used alone or added to a diuretic. The dosage may be increased to 120 mg once daily or higher until adequate blood pressure control is achieved. The usual maintenance dosage is 120 to 160 mg once daily. In some instances a dosage of 640 mg may be required. The time needed for full hypertensive response to a given dosage is variable and may range from a few days to several weeks.

**ANGINA PECTORIS—Dosage must be individualized.** Starting with 80 mg Inderal LA once daily, dosage should be gradually increased at three to seven day intervals until optimum response is obtained. Although individual patients may respond at any dosage level, the average optimum dosage appears to be 160 mg once daily. In angina pectoris, the value and safety of dosage exceeding 320 mg per day have not been established.

If treatment is to be discontinued, reduce dosage gradually over a period of a few weeks (see WARNINGS).

**MIGRAINE—Dosage must be individualized.** The initial oral dose is 80 mg Inderal LA once daily. The usual effective dose range is 160-240 mg once daily. The dosage may be increased gradually to achieve optimum migraine prophylaxis. If a satisfactory response is not obtained within four to six weeks after reaching the maximum dose, Inderal LA therapy should be discontinued. It may be advisable to withdraw the drug gradually over a period of several weeks.

**HYPERTROPHIC SUBAORTIC STENOSIS—80-160 mg Inderal LA once daily.**

**PEDIATRIC DOSAGE—** At this time the data on the use of the drug in this age group are too limited to permit adequate directions for use.

#### REFERENCES

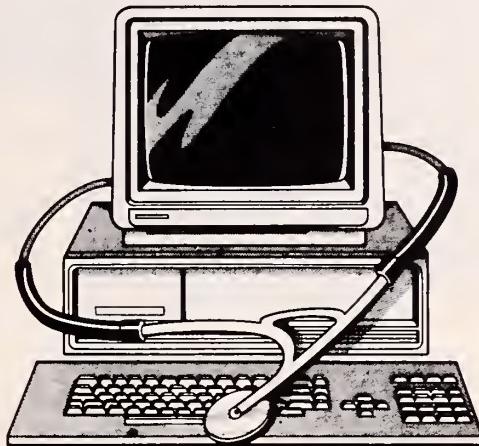
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ORIGINAL PAPERS

# Bat Rabies in Mississippi

BETTY JANE PHILLIPS, DR.P.H.

Jackson, Mississippi

RABIES IS AN almost invariably fatal, acute central nervous system disease of man, domestic animals and wild animals. Man is infected when virus-laden saliva of a rabid animal gets past the normal skin barrier by a bite or scratch, or when virus-laden saliva comes in contact with intact mucous membranes. Clinical disease can be prevented by prompt administration of human diploid cell vaccine (HDCV) in combination with rabies immune globulin (RIG). Since bats are the only animals in Mississippi known to be infected with rabies in the past 24 years, the following discussion is intended to shed more light on the types of bats found in Mississippi, their part in the transmission and maintenance of the rabies virus, and the management of individuals exposed to rabid bats. In addition, an attempt is made to define exposure.

Rabies in bats was first reported in the United States in 1953.<sup>1</sup> Since then, bat rabies has been reported from all 48 contiguous states. In 1982, 975 cases of bat rabies were reported, including 13 from Mississippi.<sup>2</sup> Bats are second only to skunks as the animals most frequently reported to be infected with rabies in the United States. The mechanism for maintenance of the rabies virus in the bat population is unclear. Indications are that the interscapular brown fat present in bats serves as a rabies virus reservoir tissue. The virus survives in the bat during hibernation only to become active with increasing temperatures and increased metabolic rate.<sup>3</sup>

Transmission of the virus from bat to bat is also poorly understood. It is easier to advance theories of transmission for the colonial species than for the

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*Since 1966, 169 bats were found to be infected with rabies in Mississippi. Currently bats are the only possible source of rabies infection for humans and domestic and wild animals in the state. Although no human cases in Mississippi have been traced to an exposure to a rabid bat, documented evidence does exist for bat-to-human transmission. The author provides information on rabies in bats in Mississippi to aid physicians in deciding whether to administer post-exposure prophylaxis to individuals who have come in contact with rabid bats.*

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solitary species. Colonial species are crowded together when they roost and have been observed biting each other and fighting among themselves for position.<sup>4</sup> In addition, infection by aerosol has been suggested as a major route of transmission for colonial species of bats roosting in caves.<sup>5</sup>

Solitary species, on the other hand, roost dispersed over wide areas, and yet they account for the largest percent of bats found infected. Studies have shown that "up to 25 percent of the solitary bats submitted to laboratories are rabid and many have attacked humans or animals, or were lying prostrate on the ground, while less than 1 percent of the colonial species submitted were rabid."<sup>1</sup> These data are seemingly paradoxical in that it would appear that infection would be spread more readily in the crowded roosting sites of colonial species. There may, however, be a bias inherent in the sampling of bats to be sent to the laboratory for testing. Colonial

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TABLE 1  
MISSISSIPPI BATS\*

Common Name	Scientific Name	Distribution, Occurrence and Status	Colonial or Solitary
Little brown bat	<i>Myotis lucifugus</i>	Caves in northern part of state, rare.	Colonial
Southeastern myotis	<i>Myotis austroriparius</i>	Caves in northern and southeastern parts of state; fairly common.	Colonial
Gray myotis	<i>Myotis grisescens</i>	Caves in northern part of state; endangered.	Colonial
Keen's myotis	<i>Myotis keenii</i>	Caves in northern part of state; rare.	Colonial
Indiana myotis	<i>Myotis sodalis</i>	Caves in northern part of state, endangered.	Colonial
Eastern Pipistrelle	<i>Pipistrellus subflavus</i>	Statewide; common.	Colonial
Big brown bat	<i>Eptesicus fuscus</i>	Statewide; common.	Solitary
Red bat	<i>Lasiurus borealis</i>	Statewide; fairly common.	Solitary
Seminole bat	<i>Lasiurus seminolus</i>	Southern part of state, common.	Solitary
Hoary bat	<i>Lasiurus cinereus</i>	Central part of state; rare.	Solitary
Eastern yellow bat	<i>Lasiurus intermedius</i>	Roosts in Spanish moss; rare.	Solitary
Evening bat	<i>Nycticeius humeralis</i>	Statewide; common.	Colonial
Eastern big-eared bat	<i>Plecotus rafinesquii</i>	Statewide; fairly common.	Colonial
Free-tailed bat	<i>Tadarida brasiliensis</i>	Southern parts of state; common.	Colonial

\* From Mississippi Mammals, a Publication of the Mississippi Department of Wildlife Conservation.

bats are easy to capture in large numbers at their roosting sites, while a solitary bat is likely to be detected and captured only if it is ill and is found on the ground. Some researchers have advanced the idea that infection in solitary species takes place at or soon after birth.<sup>1</sup> This theory is based on laboratory data showing that mother bats and their suckling babies often are all positive for rabies. The Kansas State University Diagnostic Laboratory found seven rabid red bats in 1966. Of these, five were a mother and her four young.<sup>6</sup>

Much discussion has centered around whether a carrier state may exist in insectivorous species as it does with vampire bats. To date, no evidence supports the existence of a carrier state. In every case where the rabies virus was found in salivary glands it has also been found in the brain. In addition, bats infected artificially in the laboratory exhibit clinical illness, although they may excrete virus in the saliva for an extended period of time before overt illness appears.

In spite of numerous reports of contact between rabid and non-rabid bats and pets, no cases of rabies in domestic animals or wildlife (other than bats) have been reported to the Mississippi State Department of Health for over 20 years. In addition, rabid bats have been reported from other states for the past 20 years or more, while rabies in other species in those states is absent.<sup>2</sup> Consequently, even though the possibility of bat-to-domestic-animals-and-wildlife transmission should not be underestimated, it is more limited than one might suppose.

TABLE 2  
NUMBER OF BATS TESTED AND NUMBER OF BATS POSITIVE FOR RABIES VIRUS, MISSISSIPPI, 1966-1984

Year	Number Tested	Number Positive	Percent Positive
1966	414	39	9
1967	223	25	11
1968	107	12	11
1969	62	9	15
1970	55	5	9
1971	26	2	8
1972	52	7	13
1973	61	4	7
1974	35	2	6
1975	50	3	6
1976	39	2	5
1977	40	1	2
1978	27	6	22
1979	47	7	15
1980	32	4	12
1981	41	4	10
1982	78	13	17
1983	63	9	14
1984	98	15	15
Total	1549	169	11

Documented evidence does exist for bat-to-human transmission. At least 11 human cases of rabies (none of which occurred in Mississippi) have resulted from exposure to rabid bats.<sup>1</sup>

Fourteen species of bats are found in Mississippi (See Table 1). Of these, one is commonly found to

have rabies — the red bat (*Lasiurus borealis*). The free-tailed bat (*Tadarida brasiliensis*) and the big brown bat (*Eptesicus fuscus*) as well as the others listed are occasionally found to be positive.

The big brown bat (a solitary species) may cohabit houses and is a public health hazard as it is occasionally found to be rabid. The Centers for Disease Control can grant approval to use DDT to rid structures of bats. Subsequently, mechanical barriers should be constructed to prevent reentry.

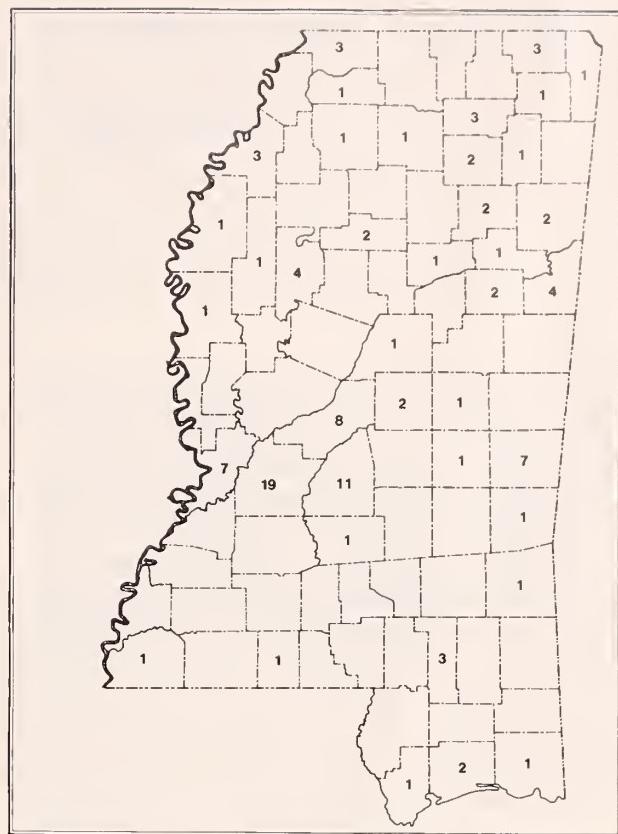
Since 1966, 1,549 bats have been tested by the Mississippi Public Health Laboratory (See Table 2). Of these, 169 were found to be infected with rabies for an overall positive rate of 11 percent. As shown in the table, the rate has varied from a low of two percent in 1977 to a high of 22 percent in 1978. Of course, more bats and more rabid bats are found when people look for them. It is not unusual for a report of one positive bat from a location (especially if it is reported in the newspaper) to stimulate the submission of other bats from the same locality.

Figure 1 shows the number and location of rabid bats identified by the Division of Public Health Laboratories from 1966-1984. Only 110 of the 169 total rabid bats found are listed on the map as some county specific data are not available. Nonetheless, this map illustrates the wide distribution of cases in Mississippi, and it is safe to assume that rabid bats are present in every county in the state.

Bats are less likely to be positive if pulled from radiator grills of cars or from swimming pools than if they are found lying prostrate on the ground in the daylight hours. If a bat is out in the daytime and appears "sick," something is wrong with it, and frequently that something is rabies. Most recent human exposures in Mississippi have been due to children, and occasionally adults, finding disabled bats lying on the ground and handling them in an inappropriate manner.

An exposure occurs when a human has live rabies virus introduced into his body via contact with a rabid animal. It is important to note that although bite and non-bite exposures are discussed, rarely do human rabies cases result from non-bite exposures. Some 250 cases of human rabies were reported in the United States from 1946 through 1973.<sup>1</sup> Of these, only three were due to non-bite exposure: one a laboratory accident and the other two attributed to exposure to aerosolized virus in bat caves.

A bite exposure occurs when a rabid animal bites sufficiently hard to puncture or tear the skin and introduce rabies virus into the body. A non-bite exposure occurs when saliva from a rabid animal gets into a scratch or other minor wound or on a



*Figure 1. Number and location of rabid bats identified by the Division of Public Health Laboratories, Mississippi State Department of Health, 1966-1984.*

mucous membrane. For example, a non-bite exposure can result from an individual handling a rabid bat (alive or dead) and then putting his fingers in his mouth or rubbing his eyes. Children are especially at risk for this kind of exposure.

In 1982, seven children required post exposure prophylaxis when they dissected a rabid bat and played with the viscera. The cost of the biologicals was approximately \$2,664.

An exposure may also be said to have occurred when aerosolized rabies virus in a confined environment (such as a cave) is introduced via the respiratory route.

When exposure to a rabid bat occurs or if exposure to a bat that cannot be captured occurs, treatment should begin as soon as possible. The bite area should be thoroughly cleansed with large amounts of soap and water. To encourage free drainage, the wound should not be sutured. Five 1.0 ml doses of human diploid cell rabies vaccine (HDCV) should be given intramuscularly on days 0, 3, 7, 14, and 28 in conjunction with rabies immune globulin (RIG)

on day 0 (20 IU/kg body weight). Up to half the RIG should be infiltrated in the area around the wound and the rest administered intramuscularly. For mucous membrane exposure, all the RIG should be administered intramuscularly. These biologicals can be purchased by most hospital and free-standing pharmacies. If any difficulty is encountered, the Office of Epidemiology, Mississippi State Department of Health (354-6660 or, after hours, 354-6612) will assist in obtaining the vaccine and immune globulin.

The attending physician has the responsibility for deciding whether to begin prophylaxis. Frequently, the choice is not easy. Again, the Office of Epidemiology is available on a 24-hour basis for consultation. If necessary, personnel at the Centers for Disease Control can be contacted.

Anyone wishing to have a bat examined for rabies should contact the Mississippi Public Health Laboratory or the local health department for instructions or assistance in transporting the specimen to the laboratory. It should be emphasized, however, that no one should attempt to capture a live bat if there is a risk of being bitten.

The fluorescent antibody (FA) test is used to examine animal brains for rabies virus particles. The test takes about five hours and is routinely done on Monday, Wednesday, and Friday. The test can be and is done at other times when it is determined that a rapid diagnosis is necessary. The FA test is extremely sensitive and if no virus particles are found in the brain, it is safe to assume that none were in the salivary glands.

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P.O. Box 1700 (39205)

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# A Community Cancer Program Looks at Carcinoma of the Larynx

LINDA M. GRIMES, A.R.T. and

LARRY H. DAY, M.D.

Hattiesburg, Mississippi

THE HATTIESBURG CANCER PROGRAM is a unique joint effort between Methodist and Forrest General Hospitals. Each hospital's Tumor Registry is both singly and jointly approved by the American College of Surgeons. An example of a cancer program at its best, the medical staffs (overlapping) of both hospitals take an active interest in the work of the registries by utilizing Tumor Registry data often. When the Tumor Registry prepares one of its required site studies, a liaison physician works closely with both registrars to produce a meaningful group of statistics.

The following paper is based on one such group of statistics. There is a growing concept that the community hospital — where 85% of all cancer patients are treated — is a valid source for compiling meaningful data. We, of course, support that theory.

The first portion of this paper is addressed to 112 patients with carcinoma of the larynx diagnosed and/or treated in Hattiesburg between January 1968 and October 1983. An overwhelming majority of these patients were over 50 years of age at diagnosis, with about 10% being under 50. White patients outnumbered black patients 5:1; the ratio of male to female patients was 8:1. Eighty-one percent of the patients were present or past smokers, and a third related a history of substantial alcohol usage. One-third of the patients reported a family history of cancer.

We noted 27% to have another primary malignancy at some time during their lifetimes, either before or after diagnosis of the laryngeal cancer. Gluckman and Crissman report as high as 30% incidence of multiple primary carcinomas occurring in the upper aerodigestive tract alone.<sup>1</sup> Multiple primaries involving other head/neck sites or lung comprised 10% in this study.

Many pathologic conditions of the larynx produce hoarseness, and cancer is no exception. A full 80%

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*A community cancer program can provide valid and significant data to the medical community, the authors state. They discuss findings of the Hattiesburg Cancer Program regarding carcinoma of the larynx, and describe the effect of such monitoring on physician education and patient care.*

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of our patients presented initially with hoarseness, and a differential diagnosis was easily achieved in most cases by means of indirect laryngoscopy. Unfortunately, many patients waited several months after the onset of hoarseness before consulting a physician who examined the larynx. Other presenting symptoms included sore throat, neck mass, cough, shortness of breath, and difficulty breathing.

As part of their workup, every patient had indirect laryngoscopy, direct laryngoscopy, and chest x-ray. Almost half the lesions were located on the true cords (glottic area). One-fourth were found in the area we categorized "supraglottic"; 6% were subglottic lesions; and 20% involved two or more of the previously listed locations.

Using documentation strictly from the medical record, we found 19% of the lesions could not be staged. The remainder were staged by the system adopted by the American Joint Committee on Cancer. This TNM classification system was used to stage the tumors by clinical findings. The largest number of patients fell into the T2 grouping (see Figure 1), eg, those lesions that have tumor extension from their original site to adjacent areas but without vocal cord fixation.<sup>2</sup>

Concerning size of lesions at diagnosis, we found that the largest group had lesions that measured 1-2 cm (38%). Most of these were true cord lesions. Because hoarseness is noted earliest in true cord lesions<sup>3</sup> (hence the small size of the lesions at diagnosis), we found the expected correlation between size of lesion at diagnosis and prognosis.

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Unusually large lesions or palpation of neck nodes is generally considered indication for radical neck dissection. Eleven patients had clinical presence of neck nodes or > 4 cm lesions at diagnosis. Nine of these underwent radical neck dissection; the two who did not undergo radical neck dissection were considered justified (ie, disease was too extensive and/or not considered good surgical candidates).

The remaining portion of the paper concerns a select group of 74 patients from within the total group. These patients were exposed to the risk of dying for at least five years, having been diagnosed within the time frame January 1968 to October 1978. The "direct method" of computing survival was utilized.<sup>2</sup> Survival was calculated using various subgroupings of the total sample; however, only the most significant findings are mentioned here.

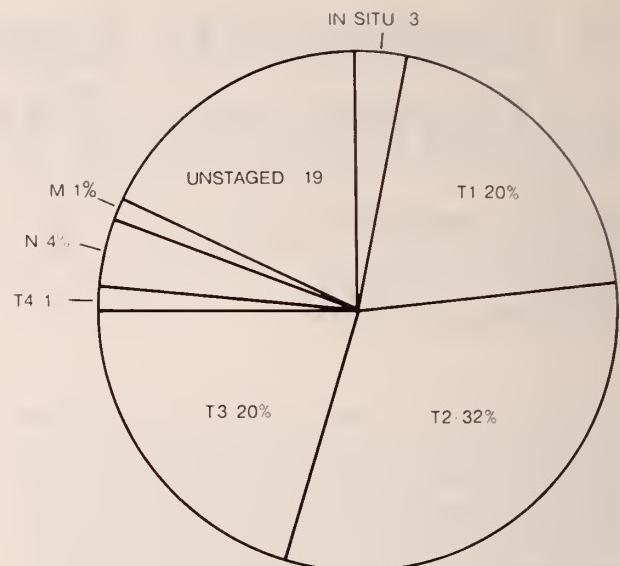
Survival by stage at diagnosis revealed the expected decrease in percentage of survival as the stage of disease increased (see Figure 2). The TNM staging system was applied here to keep the samples large enough to be significant. At five years, 16 of 20 Stage I patients were alive; 19 of 29 Stage II patients were alive; six of fourteen Stage III patients were alive; while none of the three Stage IV patients were alive. In fact, no Stage IV patients lived two years beyond diagnosis.

The location of the original lesions played an important role in survival (see Figure 3). The true cord lesions enjoyed the best survival, while the other three subgroups had significantly lower survival rates.

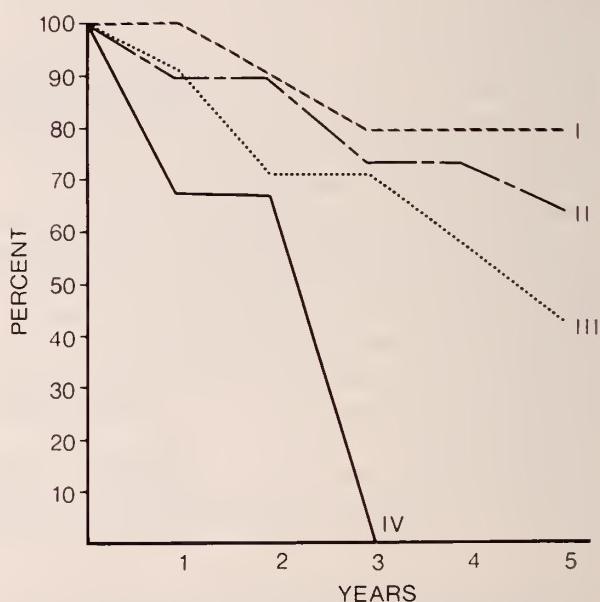
In this relatively small sampling, we were able to exhibit the best five year survival figures for those patients who underwent surgery only as treatment of their disease (see Figure 4). Patients with Stage I disease face a choice of treatment, since either surgery or radiation therapy is equally effective. Radiation therapy is known to provide excellent local control in early stage disease while preserving the voice as well.<sup>4, 5</sup>

Within the realm of survival according to treatment, we compared Stage II patients who had surgery with the Stage II patients who had radiation therapy. The surgery group demonstrated a 69% survival rate at five years while the radiation therapy group had only 33%. A very small group of Stage III and IV patients who had radiation therapy rated 0% survival at five years, while a somewhat larger group of Stage III and IV patients who had surgery showed a 43% survival rate at five years.

Admittedly, the best place for radiation in the treatment of laryngeal cancer remains in early stage disease. The conclusions drawn in the preceding



*Figure 1. Stage at diagnosis (T1 — Tumor confined to site or origin; T2 — Tumor involving adjacent areas of larynx; T3 — Tumor confined to larynx with cord fixation; T4 — Massive tumor with cartilage destruction or extension beyond confines of larynx; N — Any "T" with nodal involvement; M — Distant metastasis).*



*Figure 2. Survival by stage.*

paragraph bear this out. On a positive note, our small group of Stage I patients who chose radiation therapy enjoyed 100% survival at five years.

Finally, consider survival in these simple terms. Of our original 74 patients diagnosed between January 1968 and October 1978, 44 patients were alive at five years. We termed this a 60% "raw survival rate." At the same time, 30 patients were dead: 40% "raw failure/non-survival rate." However, a further breakdown is even more interesting. The 44 living patients were all free of their cancer. A majority of these "alive" patients were initially treated with surgery alone; two of these had radiation therapy as a subsequent treatment for recurrence and were salvaged (they are now alive and free of neoplasm at nine and ten years). No patients were found that could be classified as "alive with disease" at five years post treatment.

Eleven patients (14%) who were dead at five years actually died of their disease. These patients, as expected, were victims of a higher stage disease at diagnosis than the others who fared better, and were treated by many combinations of surgery, radiation therapy, and chemotherapy in an attempt to modify the course of their disease. Therefore, only 19 patients, or 26%, died from carcinoma of the larynx (all stages combined). Based on this study, three out of four patients with cancer of the larynx do *not* die from their cancer.

Because the American College of Surgeons now requires reporting by the Tumor Registrar to be "problem-oriented," we strove to discover some areas for improvement. Current literature suggests that all laryngeal cancer patients have one of the following for staging: tomogram, CT scan, or contrast laryngogram.<sup>6</sup> Unfortunately, we found that 72% of our patients did not have one of these tests documented on their medical records. The most plausible reason for this finding is that direct laryngoscopy with biopsy was done early in the diagnostic workup. The biopsy tends to distort the radiographic anatomy and makes accurate staging difficult. At any rate, the medical staff was urged to use these tools during workup of the patient. Physicians were also urged to document staging whenever possible, and to further delineate for the registrar whether staging is clinical or pathological. We concluded, as others before us, that early diagnosis remains the key to reducing mortality from carcinoma of the larynx.

We recognize the deficiencies of this study: very small samples within some subgroupings made some figures less than reliable; treatment was selective; and the broad span of some samples made some

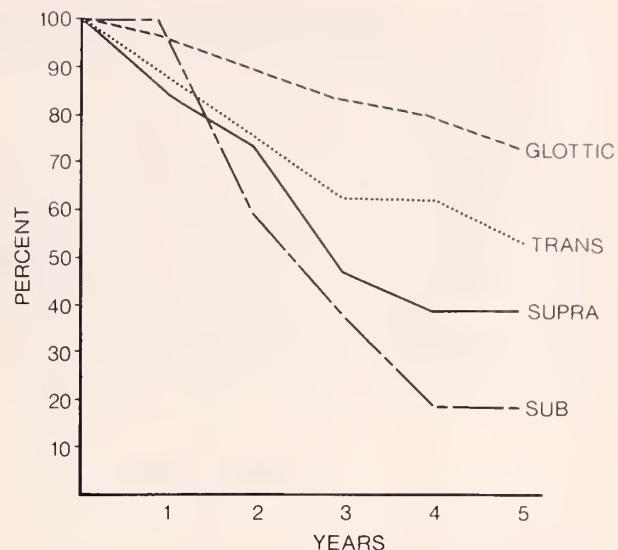


Figure 3. Survival by location of tumor, all stages.

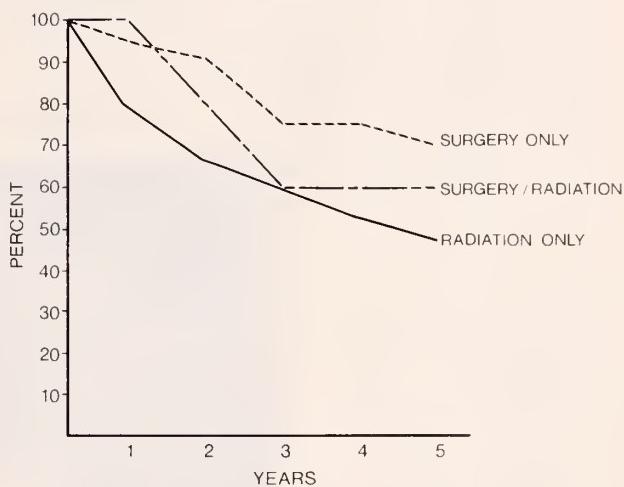


Figure 4. Survival by treatment, all stages.

conclusions a bit general in nature. What we wish to emphasize, however, is that a community cancer program can provide valid and significant data to the medical community. Very little research is presently being conducted by Hattiesburg physicians that will change the medical world. We have a fine educa-

tional structure in both hospitals, but we generally teach each other rather than "manufacture" new doctors. The basic premise here is that we, a community cancer center, can make unique and valuable contributions toward improving quality of patient care. Because of the meticulous monitoring of every cancer patient by the Tumor Registries, physicians are further educated, criteria for workup and staging are established and periodically updated, problem areas are identified and presented to each hospital's executive committee for recommendation, and patients ultimately receive the best care available.

★★★

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# Procedures in Family Medicine: A Survey

H. T. MILHORN, JR., M.D., Ph.D., R. E. SMITH, M.D.,  
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FAMILY MEDICINE, as a discipline, is currently attempting to determine the procedures (psychomotor skills) which should be taught in family medicine residency programs. To approach this question we sent questionnaires to practicing family physicians in the state of Mississippi. The questionnaire listed 109 procedures in five categories — emergency medicine, general medicine, surgery, pediatrics, and obstetrics/gynecology. In addition, an area on the form allowed for placing a check-mark in a square to indicate whether or not the physician had completed a family medicine residency program. Each procedure was ranked in regard to its frequency of use (frequently, occasionally, rarely or never) and its importance to the physician's practice (very important, moderately important, little or no importance).

## Methods

The questionnaire described above was mailed with a self-addressed return envelope to the 335 family physicians listed as members of the American Academy of Family Physicians in the state of Mississippi. It was completed and returned by 162 physicians. Two sequential mailings, six weeks apart, were required to obtain this number of returns. Of these, 127 physicians were non-residency trained and 35 were residency trained. The responses of both groups were converted to percentages and tabulated. These raw data are available on request.

## Results

Several basic differences were found between the two groups. The non-residency trained (NRT) group reported doing orthopedic, surgical, and certain ob-

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*To determine the frequency and importance of 109 selected procedures (psychomotor skills) in family medicine, a questionnaire was mailed to 335 family physicians in the state of Mississippi. The questionnaire was returned by 162 physicians. Of these, 127 were non-residency trained and 35 were residency trained. The authors compare results for both groups and discuss differences, which are believed to be due to (1) training, (2) age and thus experience, and (3) practice location. Sixty procedures that should be taught in family medicine residency programs are identified.*

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stetrical procedures (low forceps delivery, saddle block, manual placenta removal, primip breech delivery, and breech delivery) more frequently than the residency trained (RT) group. However, the RT group reported a greater frequency of other obstetrical procedures (fetal monitoring, oxytocin challenge test, insert fetal scalp monitor) than the NRT group. This emphasis on fetal surveillance by the RT group is undoubtedly due to the more recent obstetrical training of the RT group.

Other procedures done more frequently by the RT group than the NRT group are pneumatic otoscopy, laryngoscopy, central venous lines, nerve block, CO<sub>2</sub> pencil/liquid N<sub>2</sub>, arterial puncture in children, 4th degree vaginal laceration repair, and suprapubic bladder aspiration. Pneumatic otoscopy was the only procedure reported as being done frequently by the RT group but rarely or never by the NRT group.

The NRT group felt that certain procedures were more important to their practices than the RT group. These fell into orthopedic, surgical, and certain ob-

From the Department of Family Medicine, University Medical Center, Jackson, MS.

TABLE I  
FREQUENTLY-TO-OCCASIONALLY DONE OR VERY-TO-MODERATELY IMPORTANT PROCEDURES

<i>Both</i>	<i>NRT</i>	<i>RT</i>
Abscess, I & D	Bartholin cyst, I & D	Arterial puncture
Bladder aspiration, suprapubic	Biopsy, lymph node	Audiogram
Breast mass aspiration	Biopsy, rectum	CO <sub>2</sub> pencil/liquid N <sub>2</sub>
Cast application	Breast mass, excision	Culdocentesis
Cauterize nasal bleed	Cesarean section	Subclavian line
Cerumen removal	Chest tube	Umbilical vessel
Cervical biopsy, punch	Dilation, female urethra	catherization
Central venous line	Excision cervical polyps	
Cervical cautery	Fracture pelvis, closed	
Cervical laceration	Fracture tibia, closed	
Circumcision	Myringotomy	
Cutdown vein	Paracentesis	
Delivery, breech	Peritonsillar abscess	
Delivery, low forceps	Primip, breech presentation	
Delivery, simple	Saddle block	
Diaphragm fitting		
D & C		
Dislocation, shoulder		
Endometrial biopsy		
Endotracheal intubation		
Epistaxis, nasal packing		
Fetal monitoring		
Foreign body, ear		
Foreign body, nose & throat		
Fracture, fibula (closed)		
Fracture, humerus (closed)		
Fracture, radius (closed)		
Hyfrecation		
I & D, breast abscess		
I & D, hordeolum		
Ingrown toenail, excision		
Inject joint		
Insert fetal monitor, scalp		
Intubate, newborn		
IUD insertion		
Joint aspiration		
Labor induction		
Laceration, deep w/tendon		
Laceration, infected		
Laceration, simple		
Laryngoscopy		
L. P. (child)		
L. P. (adult)		
Nerve block		
Oxytocin challenge test		
Packing of uterus		
Paronychia, I & D		
Pilonidal cyst, I & D		
Placenta, manual removal		
Pneumatic otoscopy		
Proctosigmoidoscopy		
Pudental block		
Remove venereal warts		
Skin biopsy, punch		
Skin lesion, excision		
Stress testing		
Thoracentesis		
Thrombosed hemorrhoid, drain		
Tracheostomy		
Vaginal laceration, 4th degree		

stetrical procedures (saddle block, primip breech, cesarean section.) The RT group felt that insertion of uterine monitor was more important than did the NRT group. In fact, the RT group reported this procedure as being very important whereas the NRT group reported it to be of little or no importance. Again, this probably reflects the more recent training of the RT group.

Intubation of the newborn was the only procedure reported by both groups as being very important but rarely or never done.

On the 109 procedures in the questionnaire, 60 were identified by greater than or equal to 50 percent of both groups as being at least occasionally done or moderately important (Table 1). The NRT group identified an additional 15 and the RT group 6.

## Discussion

Rosenblatt et al, in 1982, reported that differences exist between the diagnostic resources used by younger residency trained physicians and their older non-residency trained colleagues.<sup>2</sup> These differences can probably be attributed to three factors: (1) difference in training, (2) difference in age and, thus, experience, and (3) difference in community size, with larger communities having more consultants available. The average age of non-residency trained family physicians in the state of Mississippi is in the mid-fifties, whereas the average age of residency trained family physicians is in the early thirties. Thus, both the training and experience factors are present. In addition, residency trained family physicians tend to practice in larger communities than their non-residency trained counterparts (see Figure 1).

As shown in Table 1, sixty procedures were identified by both groups as being at least occasionally done or moderately important. These include all of the minimal recommended procedures by the American Board of Family Physicians<sup>3</sup> with the exceptions of (1) cardiopulmonary resuscitation, (2) uncomplicated reduction of dislocated finger, (3) episiotomy, (4) fecal impaction, (5) removal of superficial foreign body in the eye, (6) gastric lavage, (7) sprains and strains, (8) tonometry, (9) venous puncture, (10) fundoscopy, (11) arterial puncture, and (12) paracentesis. The first ten were not included in our list of 109 procedures. Two of these (venous puncture and fundoscopy) were considered too elementary to include because they are universally

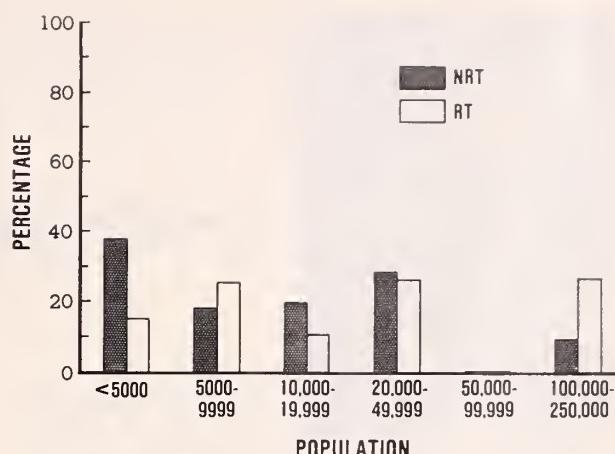


Figure 1. Distribution of family physicians in Mississippi by community size.

taught in medical schools. Arterial puncture is listed in the RT column of Table 1 and paracentesis in the NRT column.

It is felt that the 60 procedures listed in the *Both* column of Figure 1 should be taught in family medicine residency programs. The procedures recommended by the American Board of Family Physicians which are not included in this column should also be taught. Additional procedures that should be taught remain to be identified.

Rosenblatt et al also pointed out that differences exist in the practices of family physicians depending on the region of the country and the socioeconomic class of the patients.<sup>2</sup> Thus, the results of our study may, to some extent, be limited to the southeastern part of the United States.

★★★

2500 North State Street (39216)

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## The President Speaking

### Keeping the Home Court Advantage

Ralph L. Brock, M.D.  
McComb, Mississippi

Most people who follow any type of sport will be familiar with the effort made by coaches and teams to keep the home court advantage. In some instances this makes the difference between victory and defeat.

Using this same principle, I think there are things we can use to our advantage in the rapidly changing environment of medicine in which we find ourselves today. At almost every turn there is someone telling us what to do, when to do it, when not to do it, and ready to be critical when we don't seem to do it the way they ask us.

During the past decade, the Mississippi State Medical Association has been instrumental in forming two significant organizations that influence the practice of medicine and help us to keep our home court advantage. The first of these was the Mississippi Foundation for Medical Care, which is actively involved in review process and is now the official Professional Review Organization for the State of Mississippi. The second is the Mississippi Medical Fraternal and Educational Society which later changed its name to the Medical Assurance Company of Mississippi, and which is providing malpractice insurance coverage for approximately half of our membership.

One of the most frequently heard statements when the Mississippi Foundation for Medical Care was being formed was that "If we don't do it, someone else will do it for us." This was referring to the review process for the federal programs, and today this statement is even more applicable to the rapidly increasing private review program, both for industry and insurance companies.

The cost of providing health care has become such a large portion of operating expenses that industries and insurance companies alike are looking for ways to reduce these costs. One method that is rapidly appearing on the scene is the review process, which includes pre-admission review for elective hospital admissions, review for appropriateness of care, approving length of stay, and verification of ancillary services.

The Mississippi Foundation for Medical Care is one of the 54 Professional Review Organizations in the United States currently approved by the Department of Health and Human Services. Much experience has been gained during the past ten years in reviewing

(Continued on page 195)

**JOURNAL OF THE  
MISSISSIPPI STATE  
MEDICAL ASSOCIATION****VOLUME XXVI, Number 7  
JULY 1985****The Time Has Come**

At our recent MSMA Annual Session on the Gulf Coast, I had the opportunity to hear Dr. Paul Ellwood, president of Interstudy and the "father" of the HMO, IPA, PPO and more recently MeSH, speak at the Hospital Medical Staff Section meeting. He described the delivery of health care for the 1990's and beyond, and the role Mississippi might play.

He predicted that in the large metropolitan areas you will find "super-Meds" owned, financed and operated by giant medical complexes such as HCA, Prudential, etc. In smaller cities you will have hospital-medical staff joint ventures with tertiary centers, and in the peripheral areas, primary and secondary treatment centers. The rural areas would remain basically as they are now, fee-for-service.

Dr. Ellwood felt Mississippi was not a prime area for development of any of these systems because of two factors: (1) only a few large employers and (2) the cost of medical care in Mississippi was relatively low, so no one could offer it for any less and still make any money out of it.

Mississippi is on several lists for the development of an alternate health care delivery system but is way down on the bottom. Coming from Dr. Ellwood, this was a compliment to all of us involved in health care in Mississippi.

Two days later at the Medicine Plenary Session I had the opportunity to hear Mr. Roger N. Struble of Memphis, vice president, Baptist Memorial Health Care Systems, speak on "New Trends in Mid-South Health Care Delivery." In that address, he described a four-state medical complex (Mississippi, Arkansas, Tennessee, and Kentucky) with the hub being in Memphis. Negotiations were proceeding toward acquiring part ownership or a merger with Blue Cross of Memphis. He also said there were negotiations with Baptist of Jackson, Little Rock and Kentucky.

All of these would be under a prepaid health care delivery system. Baptist of Memphis owns at least one hospital in Mississippi — in Booneville.

Here you have two reports each about 180 degrees from the other. Dr. Ellwood stated he relied on the latest statistics for the basis of his talk. As good as that sounds, I'll have to go along with someone who is closer to the situation. I have first-hand knowledge of some of the things Mr. Struble mentioned, and I feel they will come to pass.

At a recent allergy meeting in Texas, I was amazed at the number of medical society-owned and operated IPAs. I think the time has come for the Mississippi State Medical Association to form an HMO and for each component society area to form an IPA, if they so desire, under the auspices of the MSMA HMO. On the recommendation of Dr. Whitman B. Johnson at the 1984 Annual Session, the House of Delegates directed that the association be ready with an alternative delivery plan. I think the time has come.

ELLIS M. MOFFITT, M.D.  
Jackson, Mississippi

**THE PRESIDENT SPEAKING***(Continued from page 194)*

Medicare and Medicaid programs; and efforts are being expanded to use this experience in review in the private sector. Contracts with both industry and insurance companies are being sought with a variety of optional services being offered at very competitive prices.

Frequently heard when you are discussing review process is that a retired physician, a dedicated nurse, a personal computer, and a WATS line is all that is needed to set up a review program. We are beginning to see some of these show up. This is an exam-

ple of losing our home court advantage. We need to promote the experience and availability of the Mississippi Foundation for Medical Care to conduct review in all areas of the state. This is a case where it is being done, it is going to be done, and if we don't do it, others will do it for us.

Leaders in industry and insurance all have personal physicians, and many times they come to their doctors for advice on how to get the best health care for their employees or their customers. Most of us have at least one such person in our practice. I suggest to you that it would be providing a service to your good friend, plus helping the practitioners of medicine in our state, if you would contact this executive and encourage him to talk to the Mississippi Foundation for Medical Care and give them an opportunity to show what they have to offer.

The Mississippi Foundation for Medical Care has maintained a good on-going relationship with the Mississippi State Medical Association since its organization. The Foundation will be a tenant in the expanded state headquarters building and will occupy more than one-third of the building when it is completed.

The Foundation's review process has always been physician oriented and has a broad base of Mississippi physicians making vital decisions that will best fit the review program into the current methods of the practice of medicine.

I encourage all physicians to become more familiar with the activities of the Mississippi Foundation for Medical Care and help promote its activities. Let's keep the game at home and "keep the home court advantage."

(Next month I will discuss the Medical Assurance Company of Mississippi.)

## COMMENT

### Doctors Caught In Medical Quandary

The reported refusal of three Oxford physicians to deliver babies of mothers who receive public health care, cited in recent news stories, points to major problems with modern medicine.

While some might view their stand with suspicion, there is even better reason to view it as a cautious and realistic decision based on the risks they would run in treating such patients. The doctors are asked to deliver babies, frequently high-risk cases, with no real knowledge of the prenatal care received or problems during pregnancy.

Obstetricians, in particular, have been among the most frequent targets in recent years in the flurry of malpractice litigation. Asking a physician to take high-risk patients with no direct knowledge of their past treatment is putting them on the legal spot.

There is certainly a problem with care and delivery of babies to low-income mothers, and one that must be more fully addressed by the state and local governments. It's a public question, not a private one.

The problem of Oxford does not appear one of hard-hearted physicians as much as of prudent practitioners caught up in a modern health care delivery quandary.

*(Reprinted from the Clarion-Ledger,  
April 15, 1985).*

### A Word of Thanks

The Mississippi State Medical Association is grateful to the following companies for their financial support of the 117th Annual Session:

Blue Cross-Blue Shield of Mississippi, Inc.  
Canton Exchange Bank  
Deposit Guaranty National Bank  
Eli Lilly and Company  
Hoechst-Roussel Pharmaceuticals, Inc.  
Medical Assurance Co. of Mississippi  
Pfizer Laboratories

## **Dr. Brock Is Inaugurated, Dr. Burnett Named President-Elect**

Dr. Ralph L. Brock of McComb was inaugurated 1985-86 president of the MSMA at the closing meeting of the 117th Annual Session held in Biloxi in May. He succeeds Dr. Ellis M. Moffitt of Jackson. Dr. W. Joseph Burnett of Oxford was named president-elect.

More than 700 registered for the five-day session, which featured a full program of scientific, business and fellowship activities.

Among special guests was Dr. Joseph Boyle, president of the AMA, who addressed the House of Delegates. He described the opportunities for the

AMA to represent the profession in seeking solutions to the issues facing medicine today, and emphasized the importance of unity of purpose.

The House later voted to approve a resolution calling for unified membership. The provision, requiring MSMA members to belong also to a local component society and to the AMA, goes into effect with payment of 1986 dues. Termination of the provision would be 1989, unless re-approved by the House at that time.

A summary of House of Delegates actions appears on pages 201 and 202 of this issue.



*Dr. Ralph L. Brock of McComb, left, was inaugurated president of the association during the 117th Annual Session. With him, from left, are Dr. W. Joseph Burnett of Oxford, president-elect, and Dr. Ellis M. Moffitt of Jackson, immediate past president.*



Dr. Joe Burnett, left, administers the oath of office to Dr. Brock. He is assisted by MSMA executive director Charles Mathews and immediate past president Dr. Ellis Moffitt, right.



Dr. Brock addresses the House.



Dr. C. P. Crenshaw, left, presents the James Grant Thompson Memorial Past President's Pin to Dr. Moffitt.



Dr. Carl Evers of Jackson presided as speaker of the House of Delegates.

## **Elections Highlight House of Delegates Sessions**

In addition to electing Dr. Joseph Burnett of Oxford to the post of president-elect, delegates to the 117th Annual Session cast ballots to elect other MSMA officers.

Dr. Lee Rogers of Tupelo was elected to the Board of Trustees, representing District 3. Dr. Virginia Tolbert of Ruleville was re-elected to the Board.

One vice president post was filled. Dr. James O. Stephens was named vice president from the Central District. Dr. Joseph E. Johnston of Mt. Olive was re-elected as associate editor.

Re-elected as chairman of the Medical Planning Group was Dr. Billy W. Long of Jackson. Two other Jackson physicians, Dr. James L. Hughes and Dr. John D. Morgan, were elected as chairmen of the Surgical Planning Group and the Hospital Medical Staff Section, respectively.

Twenty-two physicians were elected to council posts, including: Council on Budget and Finance — Drs. Karl Horn of Pascagoula and J. George Smith of Jackson; Council on Constitution and Bylaws — Dr. Eric Lindstrom of Laurel; Judicial Council — Drs. Joseph Johnston of Mt. Olive, William Godfrey of Natchez and Thomas Singley of Pascagoula;

Council on Legislation — Drs. Eugene Wood of Jackson and Richard Vise of Meridian; Council on Medical Education — Drs. Douglas Thomas of Hattiesburg, John E. Shell of Vicksburg, and Katherine A. Pyron of Gulfport; Council on Medical Service — Drs. Jerald Jackson of Hattiesburg, Tom Mitchell of Vicksburg, and Leonard Ball of Gulfport;

Council on Public Information — Drs. James S. Robbins of Greenwood, Stanley Hartness of Kosciusko, Samuel Creekmore of New Albany, J. Glenn Peters of Louisville, John Pendergrass of Hattiesburg, Randolph Tillman of Natchez, David Clippinger of Gulfport, and Ted Blanton of Jackson, chairman.

### **Board of Trustees Elects New Officers**

Dr. Roy D. Duncan of Pascagoula was elected chairman of the MSMA Board of Trustees during the board's meeting May 19 in Biloxi. Dr. David Steckler of Natchez was named vice chairman and Dr. W. Bernard Hunt of Grenada was elected secretary.

Other members of the Board are: Drs. Virginia Tolbert, Ruleville; Martin McMullan and C. G. Sutherland of Jackson; George L. Arrington of Meridian; David M. Owen of Hattiesburg; and Lee H. Rogers of Tupelo.



*Dr. Lee Rogers of Tupelo, left, was elected to the Board of Trustees. Dr. Bill Gates of Columbus, right, was named alternate delegate to the AMA.*



*Dr. Virginia Tolbert, pictured here as she presented the Nominating Committee report to the House of Delegates, was re-elected to the Board of Trustees.*



*Dr. Francis Morrison of Jackson, delegate from Central Medical Society, raises a point of discussion as Dr. Rod Jenkins of Laurel waits to address the House.*



*Dr. Sidney Graves of Natchez, a past president, comments during discussion.*

*Delegates prepare to vote. In foreground, from left, are Dr. Richard Riley and Dr. Stanley Wade, both of Meridian, and Dr. Steve Parvin of Starkville.*



# 117th Annual Session, May 15-19, 1985

## HOUSE OF DELEGATES APPROVES UNIFIED MEMBERSHIP

Unified membership requirement will go into effect with payment of 1986 MSMA dues as a result of action taken by delegates to the 117th Annual Session.

In recommending approval of the requirement that MSMA members also belong to their local component society and the AMA, the association's Reference Committee on Constitution and Bylaws cited the need for a stronger federation representing a unified profession in addressing issues currently facing the profession.

Central Medical Society, which endorsed the unified membership concept in April, introduced a resolution urging an MSMA bylaws amendment to provide for the requirement.

Delegates subsequently approved the reference committee report which recommended that the requirement be in force until 1989, at which time it would be continued only by affirmative vote of the House of Delegates.

In addition to adopting unified membership, the House took these other major actions:

- Approved plans for a \$2 million construction project to expand the MSMA headquarters building.
- Voted to support legislation to expand the authority of the Mississippi State Board of Medical Licensure to inspect medical records of a physician on its own initiative or when a complaint based on incompetence is received from a hospital medical staff, component society or the MSMA.
- Voted to establish a committee to study alternative delivery programs for Medicaid recipients.
- Called on the Governor to appoint a task force to study the medical malpractice situation in Mississippi.
- Called on the Mississippi Hospital Association to join in a study of the problems facing small rural hospitals.
- Reestablished the Council on Scientific Assembly to coordinate planning for annual sessions of the association.
  - Made all MSMA general officers voting members of the House of Delegates.
  - Called for a mandatory seat belt law.
  - Urged that the per diem to community hospitals for indigent care be raised to the level paid state charity hospitals.
  - Endorsed local government efforts to utilize community hospitals for care of the indigent.
  - Directed the Board of Trustees to study methods for paying annual dues in installments.
  - Appointed an ad hoc committee on membership recruitment and directed that each MSMA member be mailed a list of non-members in his/her area and be urged to solicit these non-members to join.
  - Emphasized the need to improve the health education curriculum in schools in Mississippi.
  - Directed that a committee be appointed to strengthen relationships between MSMA and the UMC housestaff and medical students.
  - Approved publication of an annual calendar of medical meetings in the state.

- Called for the development of voluntary guidelines for CME attendance.
- Presented \$25,281.71 to the University of Mississippi School of Medicine. The gift represents 1984 AMA-ERF contributions to the school from Mississippi physicians and spouses.
- Presented the MSMA Community Service Award to Dr. W. W. Walley of Waynesboro.
- Commended Mr. H. Cody Harrell for his many years of dedicated work for the association.

Serving on reference committees of the House were:

*Reference Committee on Rules and Order of Business*

Stanley A. Hill, M.D., Chairman  
W. Moncure Dabney, M.D.  
Charles R. Jenkins, M.D.

*Credentials Committee*

J. Elmer Nix, M.D., Chairman  
George C. Furr, M.D.  
Eric E. Lindstrom, M.D.

*Reference Committee on Reports of Officers, Board of Trustees and Councils*

Orin F. Guidry, M.D., Chairman  
James O. Stephens, M.D.  
Walter Mack Gorton, M.D.  
Stanley A. Wade, Jr., M.D.  
Donald A. Hopkins, M.D.

*Nominating Committee*

Arthur A. Derrick, M.D., Chairman  
Virginia S. Tolbert, M.D.  
William T. Oakes, M.D.  
William F. Sistrunk, M.D.  
Kent Allen Darsey, M.D.  
Gerald P. Gable, M.D.  
Mal G. Morgan, M.D.  
J. Berlyn Edwards, M.D.

*Reference Committee on Constitution and Bylaws*

Frederick E. Tatum, M.D., Chairman  
Everett H. Crawford, M.D.  
Max L. Pharr, M.D.

## 118th Annual Session

### June 2-4, 1986

### Royal d'Iberville Hotel, Biloxi



*Dr. Nina Moffitt of Jackson discusses an issue before the House.*



*Dr. David Steckler of Natchez suggests an amendment.*



*Dr. Joseph R. Mitchell of Gulfport clarifies a point of discussion.*

*Delegates prepare to vote. In foreground are, from left, Dr. Hugh Gamble of Greenville and Dr. George Abraham, II, of Vicksburg.*





*Top photo: Dr. Moffitt, right, presents the 1985 MSMA Community Service Award to Dr. W. W. Walley of Waynesboro. Bottom photo: During the reference committee hearing, delegates listen attentively to discussion on a resolution.*





*Dr. Bill Sistrunk of Jackson*



*Dr. Faser Triplett of Jackson*



*Dr. Vann Craig of Natchez*



*Dr. Fred Tatum of Hattiesburg, chairman of the Reference Committee on Constitution and Bylaws, presents the committee's recommendations.*



*Dr. Fred Guidry of Jackson presents the report of the Reference Committee on Reports of Officers, Board of Trustees and Councils.*



Above, Dr. Moffitt and Dr. Joe Boyle, AMA president, prepare to greet guests at the annual President's Reception. At right, MSMA Auxiliary president Mrs. Ted Blanton welcomes Mrs. William McPhee, president-elect of the AMA Auxiliary.



Mrs. Ben Martin of Columbus, third from left, was inaugurated 1985-86 president of MSMA Auxiliary. With her, from left, are: Mrs. Joe Herrington of Natchez, first vice president; Mrs. James Waites of Laurel, president-elect; Mrs. Roy D. Duncan of Pascagoula, second vice president; Mrs. David Owen of Hattiesburg, third vice president; and Mrs. Terrell Blanton of Jackson, immediate past president.



*Reference committee members received instructions during their annual breakfast. Above, from left, are Dr. Stanley Hill of Corinth, Dr. Moncure Dabney of Crystal Springs, Dr. Don Hopkins of Biloxi, Dr. James O. Stephens of Magee, and Dr. J. Elmer Nix of Jackson, MSMA secretary-treasurer.*



*"Boss" Moffitt and his wife, Nina, arrive at the Saturday night casino party, "Boss Moffitt's Speakeasy."*



*Dr. Arthur St. Clair of Jackson pauses to observe a scientific exhibit. Winners of the Aesculapius Award for excellence of presentation in the scientific exhibit were Drs. Mart McMullan, T. Kilgore, C. S. O'Mara and Mike Maples of Jackson for "Repeat Aortic Coronary Bypass: Indications and Results." Second place went to Dr. Henry B. Tyler of Jackson.*



Displaying winning trophies in the golf tournament and fishing rodeo are, Dr. Elmer Nix, above left, with Dr. Fred McMillan. At right is Mrs. Bob Montgomery of Canton.



Dr. Paul Moore, center, presented trophies to mens' doubles winners Dr. Sydney Smith, left, and Dr. Thomas Graves.



Winners in womens' doubles competition were Miriam Etheridge and Brenda Etheridge, pictured above with Dr. Paul Moore.



Banquet speaker Jeanne Robertson, after selecting five contestants for the "Mr. MSMA Beauty Pageant," prepares to put the contestants through their routines. From left are Drs. Gerald Gable, Faser Triplett, Ed Hill, Bill Wiener, and Ellis Moffitt.



Jeanne hugs Dr. Triplett as she tells him he's been eliminated from the competition.



Jeanne declares Dr. Gable the winner.

## PERSONALS

GEORGE ABRAHAM, II of Vicksburg was guest speaker at a recent meeting of the Vicksburg Rotary Club.

LEONARD BALL of Gulfport has been named chairman of the Guardian Society of the University of Mississippi Alumni Association. EUGENE G. WOOD, JR. of Jackson was named vice-chairman.

WILLIAM BATES of UMC taught a postgraduate course sponsored by the American Fertility Society in San Juan, Puerto Rico.

RICHARD C. BORONOW of Jackson presented a paper at recent meetings of the Felix Rutledge Society in Munich, West Germany and Graz, Austria.

ROBERT CURRIER of UMC was examiner for the American Board of Neurology in Atlanta.

JOHN K. DRAKE of Ocean Springs has been named a member of the Arthroscopy Association of North America.

WILLIAM W. EAST and T. KEITH EVERETT of Meridian announce the association of RANDY H. RUSSELL for the practice of ophthalmology.

JOE CLARK FILES of Jackson has been elected to fellowship in the American College of Physicians.

ARMIN HAERER of UMC was examiner for the American Board of Neurology in Atlanta.

JOHN N. HARRINGTON of Columbus announces the association of CHRIS J. SEARCY for the practice of obstetrics and gynecology.

JAMES HUGHES of UMC taught a New England Residents' Workshop in Boston, Massachusetts.

MICHAEL LEWIS KING of Oxford has been named a fellow of the American College of Surgeons.

J. KEITH MANSELL has associated with The Medical Clinic, 746 Manship Street, Jackson, for the practice of pulmonary medicine and internal medicine.

JAMES MARTIN of UMC was guest speaker at a conference on antepartum maternal fetal assessment in Natchez.

WILLIAM M. MCKELL, formerly of Jackson, has been named chief medical officer for Choctaw Health Department in Philadelphia, Mississippi.

RICHARD MILLER of UMC attended a committee of the National Board of Medical Examiners in Philadelphia, Pennsylvania.

WILLIAM NICHOLAS of UMC participated in a diabetes seminar in Meridian and also spoke on diabetes at a medical staff program at Hinds General Hospital in Jackson.

WENDELL STOCKTON of Amory was named Doctor of the Year by the Mississippi Society of the American Association of Medical Assistants.

The new critical care unit at Tippah County Hospital was named in honor of ORVILLE P. STONE during dedication ceremonies in May.

DAVID THOMAS of UMC was elected a fellow of the American College of Physicians. In May he participated in a Phase IV drug study in West Palm Beach, Florida.

JAMES C. WAITES of Laurel has been recertified by the American Academy of Family Physicians.

JOSEPH B. WITTY, JR. has associated with Woman's Clinic in Pascagoula for the practice of obstetrics and gynecology.

### Next Month in JOURNAL MSMA

#### *Address of the President*

#### *Malpractice Situation — Historical Background and Present Status*

#### *Physician's Role in Rape Victim Management: An Examination of Rape Epidemiology in Mississippi*

## DEATHS

BROWN, MARION H., Brookhaven. Born Lucedale, MS, Jan. 18, 1930; M.D., Jefferson Medical College of Medicine, Philadelphia, PA, 1955; interned, University Medical Center, Jackson, one year; family practice residency, Lafayette Charity Hospital, Lafayette, LA, one year; died March 30, 1985, age 55.

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## NEW MEMBERS

CHILIMIGRAS, ROBERTA M., Senatobia. Born Celia-na, OH, July 29, 1949; M.D., Ohio State University College of Medicine, Columbus, 1973; interned Bronson Methodist Hospital, Kalamazoo, MI one year; family practice residency, Northwestern University, Chicago, IL, one year; elected by North Mississippi Medical Society.

DEFRAITES, EMANUEL G., JR., Ocean Springs. Born New Orleans, June 6, 1948; M.D., Tulane University School of Medicine, New Orleans, 1973; interned Touro Infirmary, New Orleans, one year; psychiatry residency, Stanford University, Palo Alto, CA, 1974-76; psychiatry residency, National Institutes of Mental Health, Bethesda, MD, 1976-77; elected by Singing River Medical Society.

KOUMJIAN, KEVIN J., Ashland. Born Ft. Juachuca, AZ, April 1, 1957; M.D., University of California

School of Medicine, San Francisco, 1983; interned, San Francisco General Hospital, one year; elected by North Mississippi Medical Society.

MADDEN, DAVID D., Hattiesburg. Born Forest, MS, Feb. 4, 1952; M.D., University of Mississippi School of Medicine, Jackson, 1982; interned University Medical Center, Jackson, one year; elected by South Mississippi Medical Society.

NASH, BINFORD T., JR., Jackson. Born Hattiesburg, MS, Oct. 3, 1951; M.D., University of Mississippi School of Medicine, Jackson, 1976; family practice residency, University Medical Center, Jackson, 1976-79; elected by Central Medical Society.

NAYAK, KAMLESH D., Laurel. Born India, June 11, 1952; M.D., NHL Municipal Medical College, India, 1975; interned and medicine residency, Lafayette Charity Hospital, Lafayette, LA, 1976-80; adult cardiology fellowship, Deborah Heart and Lung Center, Browns Mills, NJ, 1980-82; elected by South Mississippi Medical Society.

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## **Medico-legal Brief**

### **Hospital Held Accountable For ER Physician Actions**

Mississippi's hospitals can now be held accountable for the actions of emergency room physicians even if the doctors are not staff physicians, according to a decision rendered in May by the Mississippi Supreme Court.

In a 7 to 1 vote, the high court ruled that a family was entitled to a new trial to determine whether a hospital and one of its emergency room physicians were negligent in the treatment of a patient.

Returning the case for retrial was strictly a procedural decision, the court said, not a decision on the malpractice issue.

The patient, complaining of stomach pains, had been taken to a hospital emergency room, where he was treated for heat exhaustion and then released. He returned to the hospital the next day, where he died. Autopsy results showed the cause of death to be a perforated duodenal ulcer and peritonitis.

During the trial of a \$3 million wrongful death lawsuit filed by the patient's family, the judge had ruled against allowing an out-of-state physician to testify and delivered a directed verdict against the patient's family. The high court ruled that the out-of-state physician should have been allowed to testify as a specialist in emergency medicine. With that testimony, the family would have sufficient evidence to present to a jury, the high court noted.

The court denied arguments by the hospital that it was not liable because it cannot and does not control a doctor's judgments or decisions. Attorneys for the family argued that if a doctor practices at a hospital, using its equipment and nurses, the doctor is acting as an employee of the hospital. The court noted that if the doctors do their job well, the hospital profits because of the quality of care, and said the hospital cannot escape liability when the quality of care delivered is below minimally acceptable standards.

JOURNAL MSMA invites your participation. Please send your letters, inquiries, and suggestions to the Editors, P.O. Box 5229, Jackson, MS 39216.

## **PLACEMENT SERVICE**

### **Physicians Wanted**

**CONSULTING PHYSICIANS.** Board eligible orthopedic and psychiatric consultants needed 25-30 hours per week for evaluation of Social Security disability claims. Positions available immediately. For additional information, please call Deborah Warriner, Medical Staff Coordinator, Disability Determination Services, (601) 923-2153.

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**UMC GRADUATE** completing residency in family practice in 1986 seeks small community practice in association with one or more physicians. Information on potential practice locations should be sent to Box A, c/o Journal MSMA, P.O. Box 5229, Jackson, MS 39216.

## PHYSICIANS NEEDED

Physicians (especially specialists such as ophthalmologists, pediatricians, orthopedists, neurologists, etc.) interested in performing consultative evaluations (according to Social Security guidelines) should contact the Medical Relations Office. WATS 1-800-962-2330, extensions 2276, 2275, or 2190; Jackson, 922-6811, extensions 2276, 2275, or 2190.

The Mississippi Disability Determination Services now has a program available for medical society meetings and hospital staff meetings. The purpose of this program is to explain how the disability determination process works, its historical background, its basis in legality and its documentation requirements. Any group interested in this presentation should also contact the Medical Relations Office.

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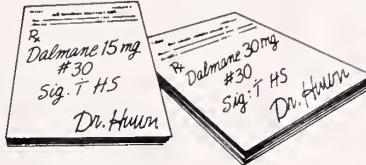
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References: 1. Kales J, et al: *Clin Pharmacol Ther* 12:691-697, Jul-Aug 1971. 2. Kales A, et al: *Clin Pharmacol Ther* 18:356-363, Sep 1975. 3. Kales A, et al: *Clin Pharmacol Ther* 19:576-583, May 1976. 4. Kales A, et al: *Clin Pharmacol Ther* 32:781-788, Dec 1982. 5. Frost JD Jr, DeLucchi MR, *J Am Geriatr Soc* 27:541-546, Dec 1979. 6. Dement WC, et al: *Behav Med*, pp. 25-31, Oct 1978. 7. Kales A, Kales JD: *J Clin Psychopharmacol* 3:140-150, Apr 1983. 8. Tennant FS, et al: Symposium on the Treatment of Sleep Disorders, Teleconference, Oct 16, 1984. 9. Greenblatt DJ, Allen MD, Shader RI: *Clin Pharmacol Ther* 21:355-361, Mar 1977.



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**Precautions:** In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

**Adverse Reactions:** Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, sharpness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase, and paradoxical reactions, e.g., excitement, stimulation and hyperactivity.

**Dosage:** Individualize for maximum beneficial effect. Adults: 30 mg usual dosage; 15 mg may suffice in some patients. **Elderly or debilitated patients:** 15 mg recommended initially until response is determined.

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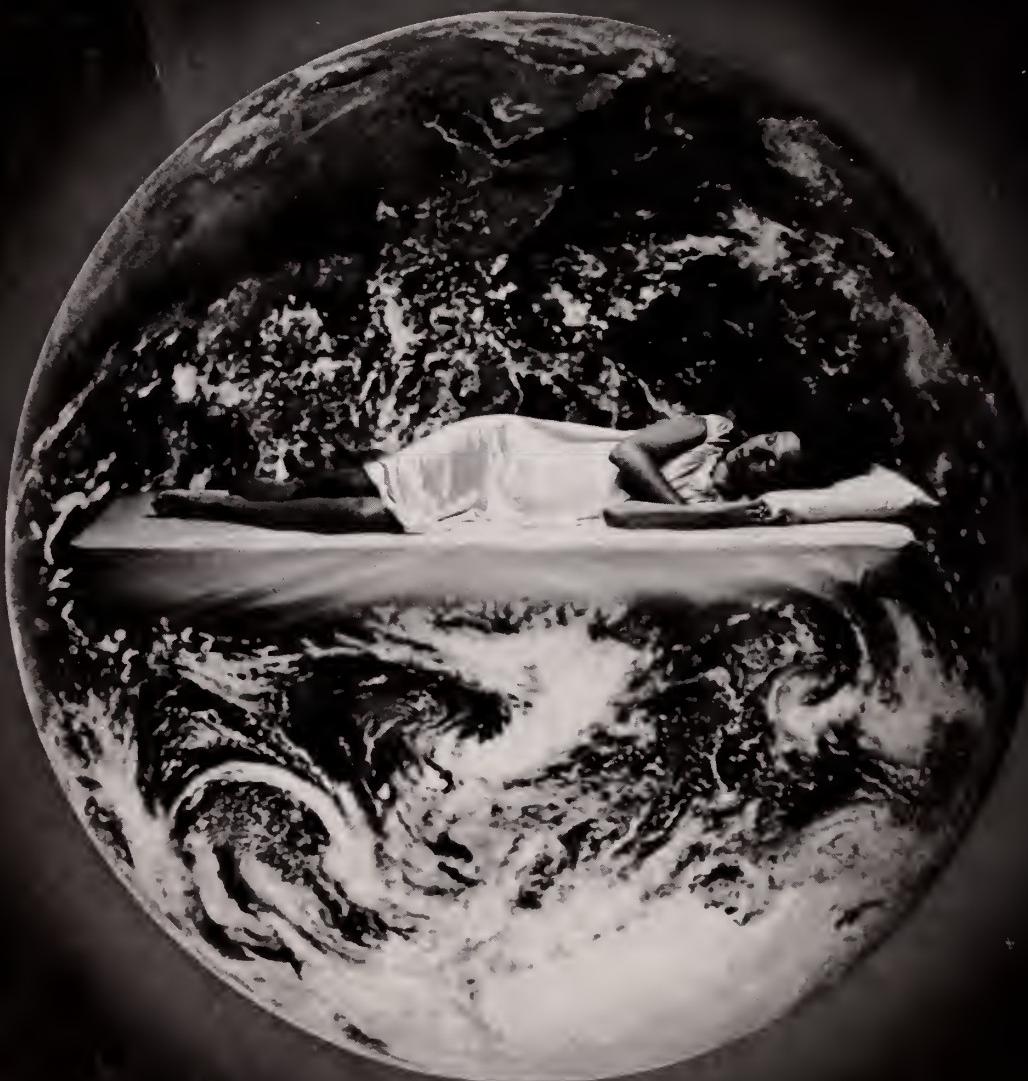
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AUGUST 1985, VOLUME XXVI, NUMBER 8

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# NEWSLETTER

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August 1985

Dear Doctor:

Members of the Mississippi State Medical Association now have exclusive access to the AMA Membership Ombudsman, Wende L. Corbett by virtue of the association's status as a unified medical society.

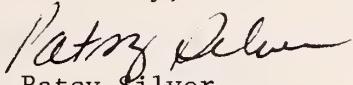
This position was mandated by the AMA House of Delegates at its 1984 Interim Meeting as a special benefit to members from unified societies. Ms. Corbett will personally handle your inquiries, requests and complaints as well as coordinate services with other AMA areas in order to provide unified members with exclusive and unique access to AMA services. You may call collect using the unified member hotline (312) 645-5323.

Medicare reimbursement for hospitals would be frozen in fiscal year 1986 at the current payment level if a proposed regulatory modification of the prospective pricing system goes into effect. The AMA, citing a GAO report indicating that the PPS may encourage some hospitals to discharge patients too soon, has stated that the proposal would have "detrimental effects on the quality of care available to Medicare beneficiaries in need of hospitalization." The AMA's statement also noted the proposed freeze might force some institutions out of business, further limiting access to hospital care for Medicare beneficiaries.

Medical practice has become increasingly integrated with hospitals, according to the AMA Council on Long Range Planning and Development in its report, "The Environment of Medicine." In 1982, 8.9% of non-federal patient care physicians, excluding residents, were full-time hospital employees. About 29% of pathologists and 17% of radiologists were full-time hospital employees.

Physicians seeking a practice site may want to contact the AMA Dept. of Physician Practice Services, 535 N. Dearborn, Chicago, IL 60610 for a Market Area Profile. It includes a report on an area with profiles on population, physicians, hospitals, etc.

Sincerely,

  
Patsy Silver  
Managing Editor



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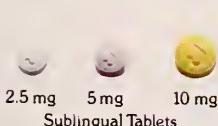
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The sublingual and chewable forms of the drug are indicated for acute prophylaxis of angina pectoris when taken a few minutes before situations likely to provoke anginal attacks. Because of a slower onset of effect, the oral forms of isosorbide dinitrate are not indicated for acute prophylaxis.

**CONTRAINDICATIONS:** SORBITRATE is contraindicated in patients who have shown purported hypersensitivity or idiosyncrasy to it or other nitrates or nitrites. Epinephrine and related compounds are ineffective in reversing the severe hypotensive events associated with overdose and are contraindicated in this situation.

**WARNINGS:** The benefits of SORBITRATE during the early days of an acute myocardial infarction have not been established. If one elects to use organic nitrates in early infarction, hemodynamic monitoring and frequent clinical assessment should be used because of the potential deleterious effects of hypotension.

**PRECAUTIONS: General:** Severe hypotensive response, particularly with upright posture, may occur with even small doses of SORBITRATE. The drug should therefore be used with caution in subjects who may have blood volume depletion from diuretic therapy or in subjects who have low systolic blood pressure (e.g., below 90 mmHg). Paradoxical bradycardia and increased angina pectoris may accompany nitrate-induced hypotension. Nitrate therapy may aggravate the angina caused by hyper trophic cardiomyopathy.

Marked symptomatic orthostatic hypotension has been reported when calcium channel blockers and organic nitrates were used in combination. Dose adjustment of either class of agents may be necessary.

Tolerance to this drug and cross-tolerance to other nitrates and nitrites may occur. Tolerance to the vascular and antianginal effects of isosorbide dinitrate or nitroglycerin has been demonstrated in clinical trials, experience through occupational exposure, and in isolated tissue experiments in the laboratory. The importance of tolerance to the appropriate use of isosorbide dinitrate in the management of patients with angina pectoris has not been determined. However, one clinical trial using treadmill exercise tolerance (as an end point) found an 8-hour duration of action of oral isosorbide dinitrate following the first dose (after a 2-week placebo washout) and only a 2-hour duration of effect of the same dose after 1 week of repetitive dosing at conventional dosing intervals. On the other hand, several trials have been done to differentiate isosorbide dinitrate from placebo after 4 weeks of therapy and, in open trials, an effect seems detectable for as long as several months.

Tolerance clearly occurs in industrial workers continuously exposed to nitroglycerin. Moreover, physical dependence also occurs since chest pain, acute myocardial infarction, and even sudden death have occurred during temporary withdrawal of nitroglycerin from the workers. In clinical trials in angina patients, there are reports of anginal attacks being more easily provoked and of rebound in the hemodynamic effects soon after nitrate withdrawal. The relative importance of these observations to the routine, clinical use of isosorbide dinitrate is not known. However, it seems prudent to gradually withdraw patients from isosorbide dinitrate when the therapy is being terminated, rather than stopping the drug abruptly.

**Information for Patients:** Headache may occur during initial therapy with SORBITRATE. Headache is usually relieved by the use of standard headache remedies or by lowering the dose and tends to disappear after the first week or two of use.

**Drug Interactions:** Alcohol may enhance any marked sensitivity to the hypotensive effect of nitrates.

Iosorbide dinitrate acts directly on vascular smooth muscle; therefore, any other agent that depends on vascular smooth muscle as the final common path can be expected to have decreased or increased effect depending on the agent.

**Carcinogenesis, Mutagenesis, Impairment of Fertility:** No long-term studies in animals have been performed to evaluate the carcinogenic potential of this drug. A modified two-litter reproduction study in rats fed isosorbide dinitrate at 25 or 100 mg/kg/day did not reveal any effects on fertility or gestation or any remarkable gross pathology in any parent or offspring fed isosorbide dinitrate as compared with rats fed a basal-controlled diet.

**Pregnancy Category C:** Isosorbide dinitrate has been shown to cause a dose-related increase in embryotoxicity (increase in mummified pups) in rabbits at oral doses 35 and 150 times the maximum recommended human daily dose. There are no adequate and well-controlled studies in pregnant women. SORBITRATE should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

**Nursing Mothers:** It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when SORBITRATE is administered to a nursing woman.

**Pediatric Use:** The safety and effectiveness of SORBITRATE in children has not been established.

**ADVERSE REACTIONS:** Adverse reactions, particularly headache and hypotension, are dose-related. In clinical trials at various doses, the following have been observed:

Headache is the most common (reported incidence varies widely, apparently being dose-related, with an average occurrence of about 25%) adverse reaction and may be severe and persistent. Cutaneous vasodilation with flushing may occur. Transient episodes of dizziness and weakness, as well as other signs of cerebral ischemia associated with postural hypotension, may occasionally develop (the incidence of reported symptomatic hypotension ranges from 2% to 36%). An occasional individual will exhibit marked sensitivity to the hypotensive effects of nitrates and severe responses (nausea, vomiting, weakness, restlessness, pallor, perspiration, and collapse) may occur even with the usual therapeutic dose. Drug rash and/or exfoliative dermatitis may occasionally occur. Nausea and vomiting appear to be uncommon. Case reports of clinically significant methemoglobinemia are rare at conventional doses of organic nitrates. The formation of methemoglobin is dose-related and, in the case of genetic abnormalities of hemoglobin that favor methemoglobin formation, even conventional doses of organic nitrate could produce harmful concentrations of methemoglobin.

**DOSAGE AND ADMINISTRATION:** For the treatment of angina pectoris, the usual starting dose for sublingual SORBITRATE is 2.5 to 5 mg; for chewable tablets, 5 mg; for oral (swallowed) tablets, 5 to 20 mg, and for controlled-release forms, 40 mg.

SORBITRATE should be titrated upward until angina is relieved or side effects limit the dose. In ambulatory patients, the magnitude of the incremental dose increase should be guided by measurements of standing blood pressure.

The initial dosage of sublingual or chewable SORBITRATE for prophylactic therapy in angina pectoris patients is generally 5 or 10 mg every 2 to 3 hours. Adequate controlled clinical studies demonstrating the effectiveness of chronic maintenance therapy with these dosage forms have not been reported.

SORBITRATE in oral doses of 10 to 40 mg given every 6 hours or in oral controlled release doses of 40 to 80 mg given every 8 to 12 hours is generally recommended. The extent to which development of tolerance should modify the dosage program has not been defined. The oral controlled-release forms of isosorbide dinitrate should not be chewed.

**DOSAGE FORMS AVAILABLE:** Sublingual Tablets (2.5, 5, 10 mg); Chewable Tablets (5, 10 mg); Oral Tablets (5, 10, 20, 30, 40 mg); Sustained Action Tablets (40 mg).

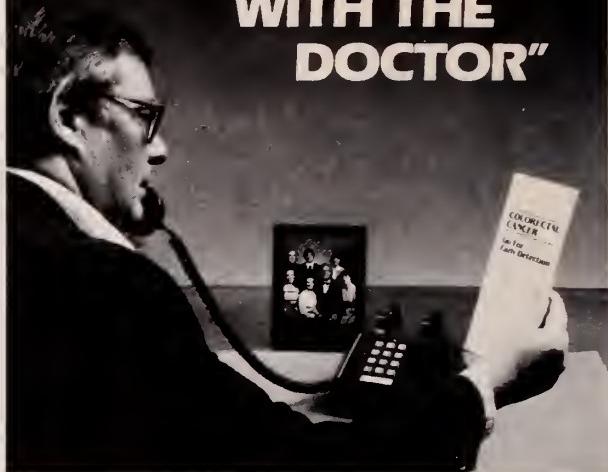


STUART PHARMACEUTICALS

Division of ICI Americas Inc.  
Wilmington, DE 19897

STR-2282

# "I'D LIKE TO MAKE AN APPOINTMENT WITH THE DOCTOR"



Be prepared, Doctor. More patients will be asking about colorectal cancer. According to a survey\* conducted by the American Cancer Society, many people would like to receive more information about colorectal cancer, and 83% said they would want to be checked for it. Further, they are learning that this cancer can be detected *before* symptoms appear. The present cure rate is 44%. The cure rate *could* be as high as 75%, with early detection and appropriate management.

For asymptomatic persons the Society recommends annual digital rectal examination at age 40 and over; at age 50 and over, an annual stool blood test, as well as sigmoidoscopy every three to five years, following two initial annual negative sigmoidoscopies.

We're here to help. You can reach us at your local American Cancer Society office or write to our Professional Education Department at National Headquarters, 90 Park Avenue, New York, NY 10016. Ask about the Society's Colorectal Check program of professional and public education for the early detection of colorectal cancer.



Before prescribing, see complete prescribing information in SK&F CO. literature or PDR. The following is a brief summary.

\* **WARNING**

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

**Contraindications:** Concomitant use with other potassium-sparing agents such as spironolactone or amiloride. Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

**Warnings:** Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K<sup>+</sup> levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K<sup>+</sup> intake. Associated widened QRS complex or arrhythmia requires prompt additional therapy. Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

**Precautions:** The bioavailability of the hydrochlorothiazide component of 'Dyazide' is about 50% of the bioavailability of the single entity. Theoretically, a patient transferred from the single entities of Dyrenium (triamterene, SK&F CD), and hydrochlorothiazide may show an increase in blood pressure or fluid retention. Similarly, it is also possible that the lesser hydrochlorothiazide bioavailability could lead to increased serum potassium levels. However, extensive clinical experience with 'Dyazide' suggests that these conditions have not been commonly observed in clinical practice. Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids, and during concurrent use with amphotericin B or corticosteroids or corticotropin [ACTH]). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Cumulative effects of the drug may develop in patients with impaired renal function. Thiazides should be used with caution in patients with impaired hepatic function. They can precipitate coma in patients with severe liver disease. Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, aplastic and hemolytic anemia have been reported with thiazides. Thiazides may cause manifestation of latent diabetes mellitus. The effects of oral anticoagulants may be decreased when used concurrently with hydrochlorothiazide; dosage adjustments may be necessary. Clinically insignificant reductions in arterial responsiveness to norepinephrine have been reported. Thiazides have also been shown to increase the paralyzing effect of nondepolarizing muscle relaxants such as tubocurarine. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. Triamterene has been found in renal stones in association with the other usual calculus components. Therefore, 'Dyazide' should be used with caution in patients with histories of stone formation. A few occurrences of acute renal failure have been reported in patients on 'Dyazide' when treated with indomethacin. Therefore, caution is advised in administering nonsteroidal anti-inflammatory agents with 'Dyazide'. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia is uncommon with 'Dyazide', but should it develop, corrective measures should be taken such as potassium supplementation or increased dietary intake of potassium-rich foods. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Concurrent use with chlorpropamide may increase the risk of severe hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Thiazides may add to or potentiate the action of other antihypertensive drugs.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

**Adverse Reactions:** Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances; postural hypotension (may be aggravated by alcohol, barbiturates, or narcotics). Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and respiratory distress including pneumonitis and pulmonary edema; transient blurred vision, sialadenitis, and vertigo have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components. Rare incidents of acute interstitial nephritis have been reported. Impotence has been reported in a few patients on 'Dyazide', although a causal relationship has not been established.

**Supplied:** 'Dyazide' is supplied as a red and white capsule, in bottles of 1000 capsules; Single Unit Packages (unit-dose) of 100 (intended for institutional use only); in Patient-Pak™ unit-of-use bottles of 100.

BRS-DZ-139

# In Hypertension\*... When You Need to Conserve K<sup>+</sup>

## Remember the Unique Red and White Capsule: Your Assurance of SK&F Quality

Serum K<sup>+</sup> and BUN should be checked periodically (see Warnings and Precautions).



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# A Case In Point For Early Intervention: Coronary Artery Disease

A 38 year old male enters the emergency room with severe substernal chest pain with ECG findings indicating significant ischemic changes involving the distribution of the left coronary artery. Despite available medical intervention the chest pain becomes more severe. What is the next course of action?

**VASODILATOR THERAPY — NO EFFECT**

**BETA - BLOCKADE — NO EFFECT**

**CA - CHANNEL BLOCKADE — NO EFFECT**

**IMPRESSION: CRITICAL CORONARY LESION WITH PREINFARCTION ANGINA**

**RECOMMENDATION: INVASIVE  
DIAGNOSTIC AND THERAPEUTIC  
MEASURES**

How do you get this patient safely to a facility which can provide immediate coronary catheterization and possible percutaneous coronary angioplasty and if angioplasty is not successful has the availability of emergency coronary surgery?

**SOLUTION: CALL OCHSNER FLIGHT**

**CARE: 1-800-624-7637**

**1-800-OCHSNER**

A call was received at Ochsner at 8:30 p.m. Ochsner Flight Care lifted off at 8:40 p.m. and arrived at the hospital at 9:00 p.m. The patient was transported back to Ochsner in the hands of a Critical Care physician and nurse by 10:15 at which time a proximal left anterior descending coronary artery lesion was identified. Coronary artery angioplasty was successful in relieving his angina. ECG and laboratory studies the following day revealed no evidence of myocardial infarction. The patient was discharged in three days to his family physician for follow-up care.

**Ochsner**

Ochsner Flight Care  
Ochsner Medical Institutions  
1512-1516 Jefferson Highway  
New Orleans, Louisiana 70121



**For an  
Arthritis  
Consultation,  
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MIST.**



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**1-800-452-9860**

**The University of Alabama Medical Center**



**The UAB Multipurpose Arthritis Center**, using a comprehensive team approach, provides therapies for such disorders as: rheumatoid arthritis, systematic lupus erythematosus (SLE), polymyositis, scleroderma, vasculitis, and related connective tissue diseases. As one of the first federally designated Multipurpose Arthritis Centers, it maintains active research into such aspects of rheumatic disease as hereditary factors of susceptibility and connective tissue biochemistry, cellular pathophysiology of rheumatoid arthritis, and the possible role of viruses in the autoimmune diseases.

The Center emphasizes a team approach involving rheumatologists, orthopedists, physical and occupational therapists, psychologists, social workers, pharmacists, nutritionists, specially trained nurses and patient educators.

Special areas of treatment at the UAB Multipurpose Arthritis Center include the following:

- Reconstructive Joint Surgery
- Diagnostic Arthroscopy and Joint Scans
- Physical and Occupational Therapy
- Clinical Trials of New Drugs Using Specific Protocols

The following outpatient specialty clinics are also offered by the Center:

- Adult Rheumatology: Diagnosis, Treatment and Follow-up
- Juvenile Arthritis (JA)
- Gold Clinic

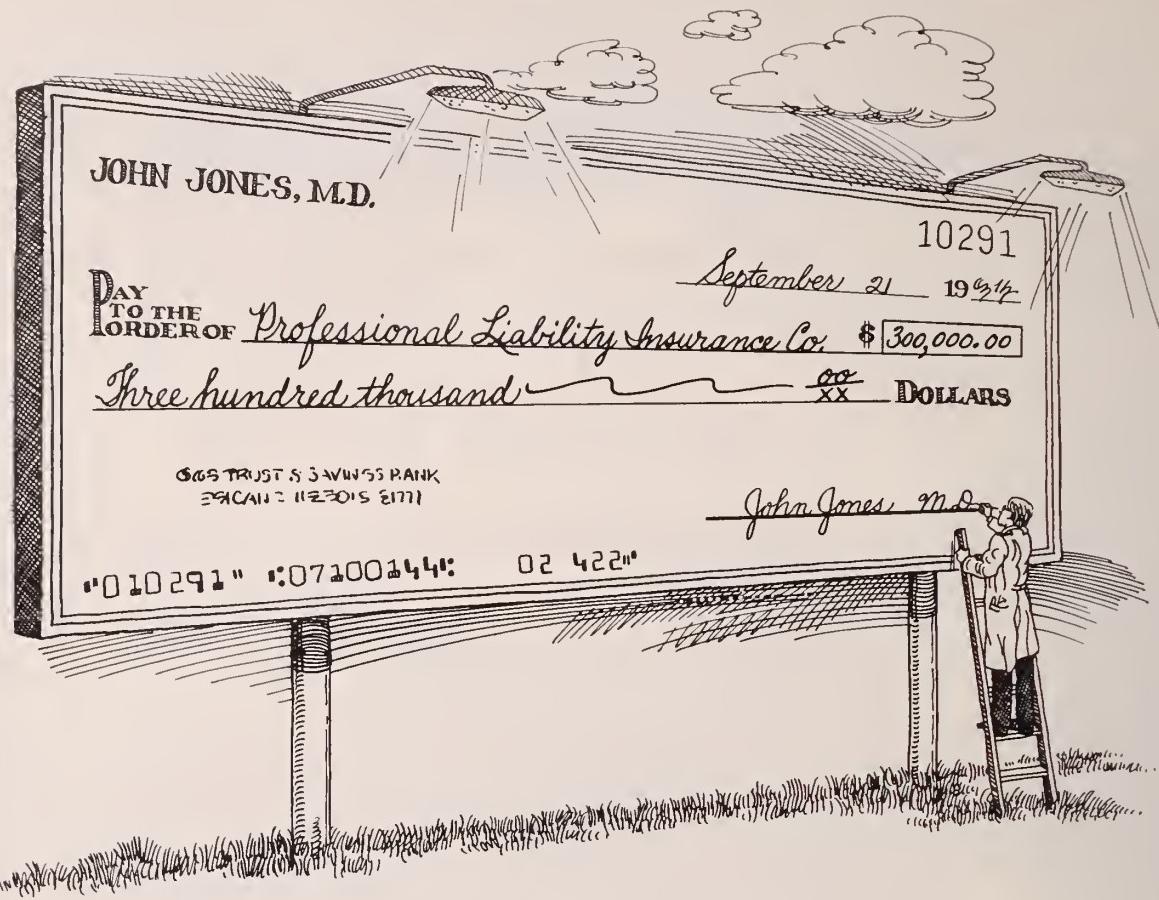
**The Multipurpose Arthritis Center is one of 60 departments, divisions and centers of the University of Alabama Medical Center accessible to you through this service.**

The Center welcomes physician inquiries. To speak with a physician, to consult about a patient, to refer a patient or to request a patient transfer via the Critical Care Transport Service, telephone by using the MIST number.

## MIST Medical Information Service via Telephone



University of Alabama Hospitals  
University of Alabama at Birmingham



## A Sign of the Times?

In 1983, 22 physician-owned professional liability insurance companies were forced to raise their premiums an average of 17 percent. At that rate, high-risk insurance coverage that cost \$63,000 in 1983 could top \$300,000 in just ten years.

These costs are leading to an affordability crisis which affects everyone. Physicians are concerned about rising premiums, exorbitant awards and continued insurance availability. Patients pay the price in increased costs and limited access to care.

Liability problems exact a high toll on physicians—in time and money, and even on their health. Some have been forced into early retirement; others have modified their practices to avoid high-risk procedures.

There is help. The American Medical Association's Special Task Force on Professional Liability and Insurance has developed an ambitious plan of action to respond to the crisis. This includes reviewing tort reform, working with the nation's policymakers to address the issue,

promoting state coalitions to deal with the problem, distributing patient information materials and instructing physicians on how to avoid lawsuits.

If you want something done about the professional liability problem, become part of the solution: join the AMA.

For more information about membership, call toll-free 800/621-8335 (in Illinois, call collect 312/645-4783), or return this coupon to:

---

### The American Medical Association

Division of Membership  
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# DATELINE

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## Dues Reduction For MSMA Members

Jackson, MS - Members of the MSMA and Kansas Medical Association will be excluded from an AMA dues increase in 1986, following action of the AMA House of Delegates at its June meeting. The two state associations recently adopted unified membership and will receive exemption from dues increases for one year. Instead of \$375 for AMA dues, MSMA members will pay \$300. Some 75% of MSMA members paid AMA dues in 1985.

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## Indigent Care Committee Formed

Jackson, MS - A Special Study Committee on Indigent Care has been formed by the state legislature. State health agencies and private health associations have been asked to name representatives to the committee, which will include among its members four legislators, Senators George Smith and Bill Canon and Representatives Ed Buelow, Jr., and John Junkin. MSMA's House of Delegates recommended the committee be formed.

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## Medicare Fee Freeze Gets Committee Approval

Washington, DC - Physicians electing to be "participating" physicians for the period beginning October 1, 1985 would be allowed an increase in their Medicare reimbursement under a proposal approved by the House Ways and Means Committee. The fee freeze for "non-participating" physicians would continue. The proposal promises an October 1, 1986 increase in Medicare reimbursement for all physicians.

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## Dementia Demands Greater Attention

Chicago, IL - The incidence of severe senile dementia of the Alzheimer's type increases with advanced age and has a higher prevalence among women, according to a study in the August Archives of Neurology. The authors conclude that as the elderly population increases, the problem needs greater attention. The study of Copiah County, Mississippi residents found prevalence ratios about twice as high for women as for men.

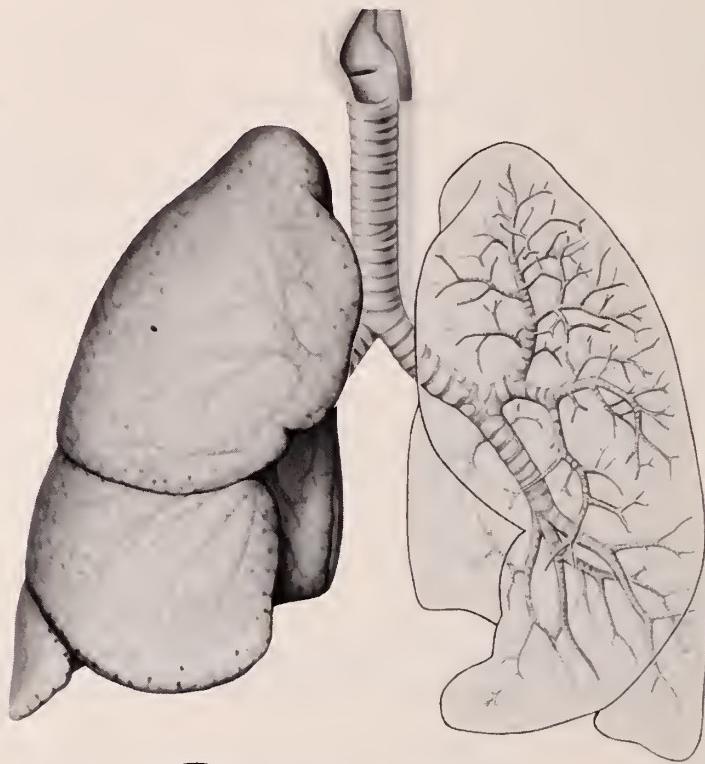
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## Leukemia Linked to Radium in Groundwater

Chicago, IL - Groundwater contaminated by radium may be a contributing factor for leukemia in humans, according to a report in the August 1 JAMA. Investigators found, in 27 Florida counties, that 12.4% of groundwater samples exceeded EPA-established maximum contaminant levels of radium and that the incidence of leukemia in high exposure areas was significantly greater than that in low exposure areas.

---

# Consider the causative organisms...



## Ceclor® cefaclor

### 250-mg Pulvules® t.i.d.

#### offers effectiveness against the major causes of bacterial bronchitis

**H. influenzae, H. influenzae, S. pneumoniae, S. pyogenes**  
(ampicillin-susceptible)      (ampicillin-resistant)

**Brief Summary** Consult the package literature for prescribing information.

**Indications and Usage** Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae* (*Diplococcus pneumoniae*), *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci).

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

**Contraindication** Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

**Warnings** IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY.

THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS. AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS, INCLUDING ANAPHYLAXIS, TO BOTH THE PENICILLINS AND THE CEPHALOSPORINS.

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics (including macrolides, semisynthetic penicillins, and cephalosporins); therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with antibiotic therapy. Such colitis may range in severity from mild to life threatening.

Treatment with broad spectrum antibiotics alters the normal flora of the colon and may permit overgrowth of *Clostridium difficile* is one primary cause of antibiotic associated colitis.

Mild cases of pseudomembranous colitis usually respond to drug discontinuance alone. In moderate to severe cases, manage-

ment should include sigmoidoscopy, appropriate bacteriologic studies, and fluid, electrolyte, and protein supplementation. When the colitis does not improve after the drug has been discontinued, which is more frequently than the drug of choice for antibiotic-associated pseudomembranous colitis produced by *C. difficile*. Other causes of colitis should be ruled out.

**Precautions: General Precautions** — If an allergic reaction to Ceclor® (cefaclor, Lilly) occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of Ceclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate medical action should be taken.

Positive direct Coombs' tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antigen/antibody tests are performed on the minor side or in Coombs' testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs' test may be due to drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such conditions, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with tablets and not with Tes-Tape® (Glucose Enzymatic Test Strips).

Broad spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.

**Usage in Pregnancy — Pregnancy Category B** — Reproduction studies have been performed in mice and rats at doses up to 12 times the human dose and in terrets given three times the maximum

human dose and have revealed no evidence of impaired fertility or harm to the fetus due to Ceclor® (cefaclor, Lilly). There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

**Nursing Mothers** — Small amounts of Ceclor have been detected in mother's milk following administration of single 500-mg doses. Average levels were 0.18, 0.20, and 0.16 mcg/ml at two, three, four, and five hours respectively. Trace amounts were detected at one hour. The effect of nursing infants is not known. Caution should be exercised when Ceclor is administered to a nursing woman.

**Usage in Children** — Safety and effectiveness of this product for use in infants less than one month of age have not been established.

**Adverse Reactions** — Adverse effects considered related to therapy with Ceclor are uncommon and are listed below.

**Gastrointestinal symptoms** occur in about 2.5 percent of patients and include diarrhea (1 in 70).

Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment. Nausea and vomiting have been reported.

**Hypersensitivity reactions** have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100), pruritus, urticaria, and positive Coombs' tests; each occur in less than 1 in 200 patients. Cases of serum sickness-like reactions (erythema multiforme or the above skin manifestations accompanied by arthritis/arthralgia and frequently fever) have been reported.

These reactions are apparently due to hypersensitivity and have usually occurred during or immediately following course of therapy with Ceclor. Such reactions have been reported more frequently in children than in adults. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy. No serious sequelae have been reported.

Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which have

occurred in patients with a history of penicillin allergy. Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

**Carcinogenesis, Mutagenesis, Impairment of Fertility** — Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

**Hepatic** — Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

**Hematopoietic** — Transient fluctuations in leukocyte count, predominantly neutrophil cytopenia occurring in infants and young children (1 in 40).

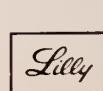
**Renal** — Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[01782]

**Note** Ceclor® (cefaclor, Lilly) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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Additional information available to  
the profession on request from  
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but angina still  
strikes...**



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To protect your patients, as well as their quality of life,  
add Isoptin instead of a beta blocker.

First, Isoptin not only reduces myocardial oxygen demand by reducing peripheral resistance, but also increases coronary perfusion by preventing coronary vasospasm and dilating coronary arteries — both normal and stenotic. These are antianginal actions that no beta blocker can provide.

Second, Isoptin spares patients the beta-blocker side effects that may compromise the quality of life.

With Isoptin, fatigue, bradycardia and mental depression are rare. Unlike beta blockers, Isoptin can safely be given to patients with asthma, COPD, diabetes or peripheral vascular disease. Serious adverse reactions with Isoptin are rare at recommended doses; the single most common side effect is constipation (6.3%).

Cardiovascular contraindications to the use of Isoptin are similar to those of beta blockers: severe left ventricular dysfunction, hypotension (systolic pressure <90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no artificial pacemaker is present) and second- or third-degree AV block.

So, the next time a nitrate is not enough, add Isoptin...for more comprehensive antianginal protection without side effects which may cramp an active life style.



**ISOPTIN. Added  
antianginal protection  
without beta-blocker  
side effects.**

# ISOPTIN® (verapamil HCl/Knoll)

80 mg and 120 mg scored, film-coated tablets

**Contraindications:** Severe left ventricular dysfunction (see *Warnings*), hypotension (systolic pressure < 90 mm Hg) or cardiogenic shock, sick sinus syndrome (except in patients with functioning artificial ventricular pacemaker), 2nd- or 3rd-degree AV block. **Warnings:** ISOPTIN should be avoided in patients with severe left ventricular dysfunction (e.g., ejection fraction < 30% or moderate to severe symptoms of cardiac failure) and in patients with any degree of ventricular dysfunction if they are receiving a beta blocker. (See *Precautions*.) Patients with milder ventricular dysfunction should, if possible, be controlled with optimum doses of digitalis and/or diuretics before ISOPTIN is used. (Note interactions with digoxin under *Precautions*.) ISOPTIN may occasionally produce hypotension (usually asymptomatic, orthostatic, mild and controlled by decrease in ISOPTIN dose). Elevations of transaminases with and without concomitant elevations in alkaline phosphatase and bilirubin have been reported. Such elevations may disappear even with continued treatment; however, four cases of hepatocellular injury by verapamil have been proven by rechallenge. Periodic monitoring of liver function is prudent during verapamil therapy. Patients with atrial flutter or fibrillation and an accessory AV pathway (e.g. W-P-W or L-G-L syndromes) may develop increased antegrade conduction across the aberrant pathway bypassing the AV node, producing a very rapid ventricular response after receiving ISOPTIN (or digitalis). Treatment is usually D.C.-cardioversion, which has been used safely and effectively after ISOPTIN. Because of verapamil's effect on AV conduction and the SA node, 1° AV block and transient bradycardia may occur. High grade block, however, has been infrequently observed. Marked 1° or progressive 2° or 3° AV block requires a dosage reduction or, rarely, discontinuation and institution of appropriate therapy depending upon the clinical situation. Patients with hypertrophic cardiomyopathy (IHSS) received verapamil in doses up to 720 mg/day. It must be appreciated that this group of patients had a serious disease with a high mortality rate and that most were refractory or intolerant to propranolol. A variety of serious adverse effects were seen in this group of patients including sinus bradycardia, 2° AV block, sinus arrest, pulmonary edema and/or severe hypotension. Most adverse effects responded well to dose reduction and only rarely was verapamil discontinued. **Precautions:** ISOPTIN should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of excessive pharmacologic effects. Studies in a small number of patients suggest that concomitant use of ISOPTIN and beta blockers may be beneficial in patients with chronic stable angina. Combined therapy can also have adverse effects on cardiac function. Therefore, until further studies are completed, ISOPTIN should be used alone, if possible. If combined therapy is used, close surveillance of vital signs and clinical status should be carried out. Combined therapy with ISOPTIN and propranolol should usually be avoided in patients with AV conduction abnormalities and/or depressed left ventricular function. Chronic ISOPTIN treatment increases serum digoxin levels by 50% to 70% during the first week of therapy, which can result in digitalis toxicity. The digoxin dose should be reduced when ISOPTIN is given, and the patients should be carefully monitored to avoid over- or under-digitalization. ISOPTIN may have an additive effect on lowering blood pressure in patients receiving oral antihypertensive agents. Disopyramide should not be given within 48 hours before or 24 hours after ISOPTIN administration. Until further data are obtained, combined ISOPTIN and quinidine therapy in patients with hypertrophic cardiomyopathy should probably be avoided, since significant hypotension may result. Clinical experience with the concomitant use of ISOPTIN and short- and long-acting nitrates suggest beneficial interaction without undesirable drug interactions. Adequate animal carcinogenicity studies have not been performed. One study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. **Pregnancy Category C:** There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor and delivery only if clearly needed. It is not known whether verapamil is excreted in breast milk; therefore, nursing should be discontinued during ISOPTIN use.

**Adverse Reactions:** Hypotension (2.9%), peripheral edema (1.7%), AV block: 3rd degree (0.8%), bradycardia: HR < 50/min (1.1%), CHF or pulmonary edema (0.9%), dizziness (3.6%), headache (1.8%), fatigue (1.1%), constipation (6.3%), nausea (1.6%), elevations of liver enzymes have been reported. (See *Warnings*.) The following reactions, reported in less than 0.5%, occurred under circumstances where a causal relationship is not certain: ecchymosis, bruising, gynecomastia, psychotic symptoms, confusion, paresthesia, insomnia, somnolence, equilibrium disorder, blurred vision, syncope, muscle cramp, shakiness, claudication, hair loss, macules, spotty menstruation. **How Supplied:** ISOPTIN (verapamil HCl) is supplied in round, scored, film-coated tablets containing either 80 mg or 120 mg of verapamil hydrochloride and embossed with "ISOPTIN 80" or "ISOPTIN 120" on one side and with "KNOLL" on the reverse side. Revised August, 1984.

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ORIGINAL PAPERS

# The Continent Ileal Urinary Reservoir: A Significant Advance in Urinary Diversion

WALTER R. JONES, JR., M.D.

Jackson, Mississippi

THE HISTORY of the search for an ideal means of permanent urinary diversion is one replete with a variety of frustrating efforts by some of the most respected and adept surgeons in the fields of urology and surgery.

In spite of this work, the Bricker ileal conduit, first reported in 1950,<sup>1, 2</sup> remains the most reliable and accepted procedure. While this conduit is easily constructed and readily provides an adequate reservoir, it fails to provide several important functions of the normal urinary bladder.

Notably, it is a conduit only, and provides no continent control of urinary flow, and an external collection appliance must be worn at all times. A second and more important deficit is that no satisfactory antireflux valve has been adapted to the Bricker conduit, and prolonged ureteral reflux and ascending infection may lead to deterioration of renal function.<sup>3, 4</sup> This becomes all important when this means of diversion is utilized in the pediatric age group, as is often the case.

The ileal conduit has been successful, however, in avoiding the problems of urinary reabsorption with attendant metabolic disturbances noted with uretero-sigmoidostomy.

Deterioration of renal function associated with the Bricker conduit has stimulated a number of procedures aimed at "undiversion" in recent years. The

*Patients who undergo resection of the bladder or experience loss of bladder function have previously required a Bricker ileal conduit for urinary diversion. Recent surgical innovations by Kock and others have provided a continent internal urinary reservoir which avoids the problems of ureteral reflux and requires no external collection device. The author, based on clinical work in patients with the continent ileostomy and experimental animal studies, feels that the continent urostomy has been further improved for use in patients. An initial patient in whom a continent urostomy was performed is reported with satisfactory operative results.*

efforts by Hendren, Mogg, Tscholl, Whitmore, and others have resulted in numerous operations, ie, cecal-cystoplasty, ileocecal conduit, isolated colonic segments, etc. — each with specific features failing to accomplish desired patient compliance or approximation of normal urinary tract function.<sup>4, 5</sup>

In 1967 Professor N. G. Kock of Sweden introduced a continent ileostomy,<sup>6</sup> which provided storage and controlled release of ileal contents in the ileostomate. Since that time, this procedure has

Dr. Jones is engaged in the private practice of general surgery in Jackson, MS.

gained widespread acceptance among ileostomates worldwide, but the surgical community has been slow to accept the concept. This reticence has been primarily twofold. The procedure itself is technically very difficult with potential for a high complication rate. The second problem has been that of late incontinence developing as a result of valve slippage or desusception. For these reasons the procedure has been abandoned by several noted authorities in the field of intestinal surgery.<sup>7</sup>

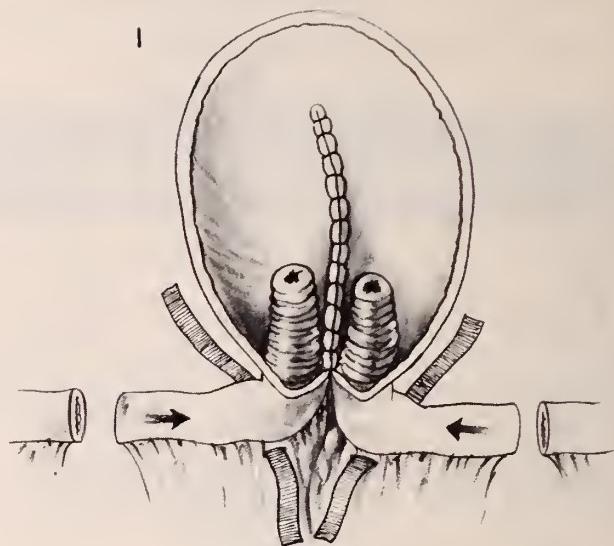
The procedure continues to find success in the hands of certain surgeons, and the longterm follow-up by Kock and others is promising.<sup>8, 9, 10</sup> A number of recent refinements by Barnett have resulted in a negligible incidence of valve slippage.<sup>10, 11, 12</sup>

In 1982 Kock reported a series of 12 patients dating from 1975 in which he used a modification of his continent ileostomy to create a continent urinary reservoir.<sup>13</sup> This bladder substitute contained two non-refluxing valves and represented a significant advance in the area of urinary diversion. Not only was the urinary pouch continent and required no external appliance, but it also contained a second valve which prevented the problem of ureteral reflux and ascending infection. Subsequent reports by Gerber, Madigan, and Skinner have substantiated Kock's original findings.<sup>14-19</sup>

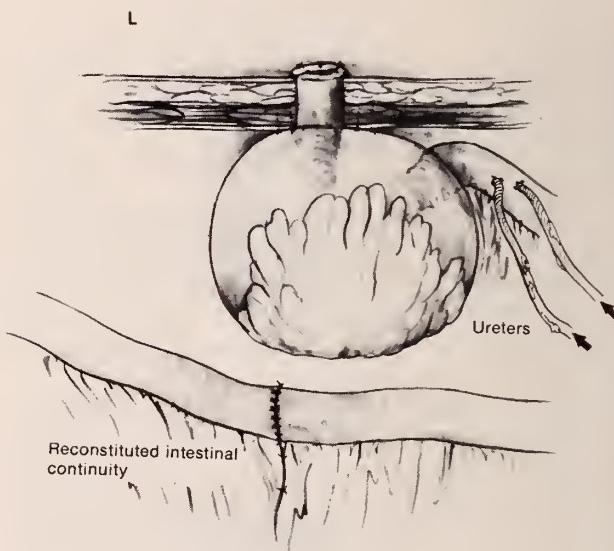
Philipson in 1983 reported an exhaustive analysis of 10 patients with continent ileal urinary reservoirs performed by Kock.<sup>18</sup> The mean follow-up time was 15 months, ranging from 5 months to 6½ years. Metabolic studies, mucosal biopsies, L-phenylalanine absorption studies, radiography, bacteriological studies, manometrics, and reflux studies were done. All valves were continent with no ureteral or cutaneous reflux. No metabolic abnormalities were found. Microscopically the biopsies showed a progressive flattening of villi and loss of villous absorptive surface corresponding to a time-related decrease in L-phenylalanine absorption.

Bacteriologic studies of urine obtained from the reservoirs showed that 5 of 7 tested showed positive cultures for bacteria with none having symptoms of clinical urinary tract infections. After 3 months the reservoirs measured over 500 cc in capacity.

Skinner recently reported a series of 104 patients in which he performed a Kock continent urostomy for a variety of problems including bladder neoplasms, congenital lesions of the bladder, neurogenic acquired bladder dysfunction, and bladder trauma, and previous Bricker loops.<sup>17</sup> There have been 15 complications in 103 patients — 12 in the first 51 patients, and 3 in the latter 53 patients. Of the latter 100 patients 98 are continent, and 10% of the



*Figure 1: An oval intestinal plate with two invaginated intestinal valves is used to form the continent reservoir.*



*Figure 2: The completed continent urostomy with re-established intestinal continuity. The ureters are affixed to the afferent valve segment of the reservoir. The flattened continent stoma allows for easy periodic catheterization and requires no external urinary collection device.*

patients required re-operation.

We have proceeded with a series of animal laboratory experiments using Kock's and Skinner's techniques for formation of a continent ileal urinary

reservoir. A series of ten operative procedures were carried out in the canine model. After the induction of general anesthesia, laparotomies were performed and ileal pouches fashioned containing two non-refluxing valves. The ureters were anastomosed to the afferent valve segments, and these pouches proved both functional and continent.

Utilizing operative experience gained in performing 60 continent ileostomies in patients, and applying Barnett's modifications to avoid valve slippage and reservoir leakage, we feel the Kock continent urostomy has been further improved for use in patients.

We have now performed this procedure in our initial patient with satisfactory early results. A 31-year-old male paraplegic, with an ileal loop performed 12 years earlier, presented requesting conversion to a continent type of reservoir. He was evaluated by urologic and surgical consultants with renal function studies, an IVP, and radiography of his ileal loop. After thorough pre-operative evaluation, a continent ileal urostomy was performed. His post-operative course was uncomplicated, and prior to discharge he was evaluated with endoscopy and radiography of his pouch and follow-up IVP. He now empties his pouch by catheterization every 3 hours while awake and once at night. These intervals will be gradually increased as his reservoir capacity increases. He requires no external "bag" or collection device, and his antireflux valve is competent. The patient's response to his initial result has been one of satisfaction.

★★★

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# CHALLENGE OF A LIFETIME



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# **The Physician's Role in Rape Victim Management: An Examination of Rape Epidemiology in Mississippi**

**DARDEN NORTH, M.D. and  
G. RODNEY MEEKS, M.D.  
Jackson, Mississippi**

THE MANAGEMENT of a rape victim requires sensitive gynecological care that emergency room physicians, family practitioners, and gynecologists must be able to provide. Because the physician must collect evidence and may be required to provide courtroom testimony, the legal ramifications surrounding the rape victim must be fully understood. The fact that physical injury occurs and death may result from rape or sexual assault is confirmation that rape is not primarily a sexual act but rather an act of violence in which sex is used as a weapon.

Statute 97-3-65 of the Mississippi Penal Code defines rape as "carnal knowledge of the female under twelve years of age or over twelve against her will." This traditional definition of rape requires a female victim as well as nonconsensual penile-vaginal penetration accomplished with force or the threat of force. Penetration can be partial or complete. Emission of seminal fluid is not necessary. Furthermore, mental incompetence of the victim secondary to mental illness, intoxication, or any other reasons is considered nonconsent.

Other statutes define statutory rape as not only sexual intercourse with a female under the age of 12 but also laceration of the genitalia which occurs in an attempt to penetrate the vagina, even without actual penetration. Marital rape is not recognized in Mississippi unless the couple has been living separately for a length of time.

Mississippi, unlike some other states, still sepa-

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From the Department of Obstetrics and Gynecology, University Medical Center, Jackson, MS.

rates rape from sexual battery and sexual assault. Sexual battery is interpreted as accomplished forced nongenital or anal penetration. The terms *fellatio* and *sodomy* come under the classification of sexual battery and refer to forced oral stimulation of the penis and to nonconsensual anal intercourse, respectively. The penalty for sexual battery involves a prison term not exceeding 30 years in Parchman. Sexual assault differs from sexual battery in that sexual assault is interpreted as an unsuccessful attempt to ravish a female.

Statistics provided by the Mississippi Rape Crisis Center demonstrate that the national trend of increasing numbers of reported rapes is also evident in the central area of Mississippi. The 138 rapes which were reported to the Rape Crisis Center in 1984 represent a 66% increase over the preceding six years. This increase may, however, reflect only an increase in the number of cases reported due to improved crisis counselling and public awareness and not an actual increase in the number of rapes committed. The statistical details of the most recent cases reported to the Rape Crisis Center are enumerated in Table I.

Of those cases which lead to trial and conviction, the jury usually sets the sentencing at life imprisonment for brutal rape but only 20 years for nonbrutal rape. Parole is then considered in both instances after approximately one-fourth of the term is served. The penalty for statutory rape is death or life imprisonment in the state penitentiary. Unlike the Mississippi Rape Crisis Center, the Mississippi Crime

Commission is involved with rape cases statewide and has also noted increases in the number of reported cases, most notably in the Gulf Coast area. Presently, the commission deals with approximately 40 to 50 cases per month with some months totaling as many as 60. The statewide statistics from the Mississippi Crime Commission show a trend of more younger children and older women becoming rape victims.

The hours from 6:00 p.m. to 6:00 a.m. seem to have an affinity for the incidence of rape among cases reported to the Mississippi Rape Crisis Center (see Figure 1). Also, the incidence of rape as seen by the University Medical Center Social Work Department seems to have a seasonal variation in that more rapes occur during the summer months (see Figure 2).

Rape victims are encouraged to seek a hospital emergency room for treatment in order to receive medical care as well as to preserve evidence for possible later courtroom use. Many of these patients are referred to the University Medical Center Emergency Department in Jackson, Mississippi, where a rape management protocol has been devised using the sexual assault evidence collection kit provided by the Mississippi Crime Commission and Jackson Police Department.

TABLE I  
MISSISSIPPI RAPE STATISTICS

Year	1983	1984
Total Victims	114	138
Average Age of Victim	24	26
Average Age of Assailant	25	25
Race of Victim:		
Black	80%	77%
White	20%	23%
Race of Assailant:		
Black	88%	86%
White	12%	13%
Unknown	—	1%
Location of Attack:		
Residence	65%	56%
Vehicle and/or Street	17%	16%
Other	18%	28%
Weapon Used:		
Strongarm	55%	62%
Gun	19%	16%
Knife	20%	15%
Other	5%	6%
Unknown	1%	1%
Cases Resolved by Arrest of a Suspect	41%	43%

To care for possible victims of sexually-related criminal acts, the physician must deal with both the physical and emotional consequences of the attack in a systematic fashion which includes a thorough history-taking, careful physical examination, appropriate laboratory sampling and specimen collection, care of any physical injuries, administration of necessary medication, social work consultation, and arrangement for appropriate follow-up care. The physician's legal duty is not to determine whether or not an illegal pseudosexual act has occurred but to obtain objective evidence that could or could not corroborate the victim's claims and identify the assailant.

In taking and recording a history from the patient, the physician should avoid words such as *alleged rape* or *probable rape*. Statements that seemingly have no medical significance may have a great deal of legal significance at a later time. Particularly important is information concerning the use of a weapon, physical restraint, or intoxicants during the attack as well as the number or identity of the assailants.

Next, a medical history (not unlike that taken from any emergency room patient) should be obtained with particular emphasis sought concerning the following points: normal menstrual patterns; previous and present contraceptive practice; any recent pregnancy symptoms; date and time of last intercourse; any history of gynecological surgery, previous venereal disease, hepatitis or other hepatic disease; blood coagulation disorders or mental illness. Also, whether or not the patient has voided, defecated, urinated or changed clothes since the attack may have forensic importance when specimens are analyzed.

Before collecting those specimens, a thorough physical examination is performed as outlined here with particular areas receiving close scrutiny as directed by the historical findings. The physician's first impressions of the patient are important. Most rape victims will display a calm manner during the 24 hours immediately following the assault. The general physical appearance should be recorded, physical and emotional maturity as well as sexual intelligence assessed, and gross evidence of drug or alcohol use mentioned. The skin, hair, nails and extremities also deserve scrutiny. Physical trauma in the form of abrasions, lacerations, or ecchymoses can occur to the head, face, neck, chest and extremities when the victim is struck, bound, or otherwise injured during a struggle with her assailant. Each injury should be accurately described by the examiner in his written report. Most authorities do not

## 1984 MISSISSIPPI RAPE CRISIS CENTER REPORTED CASES

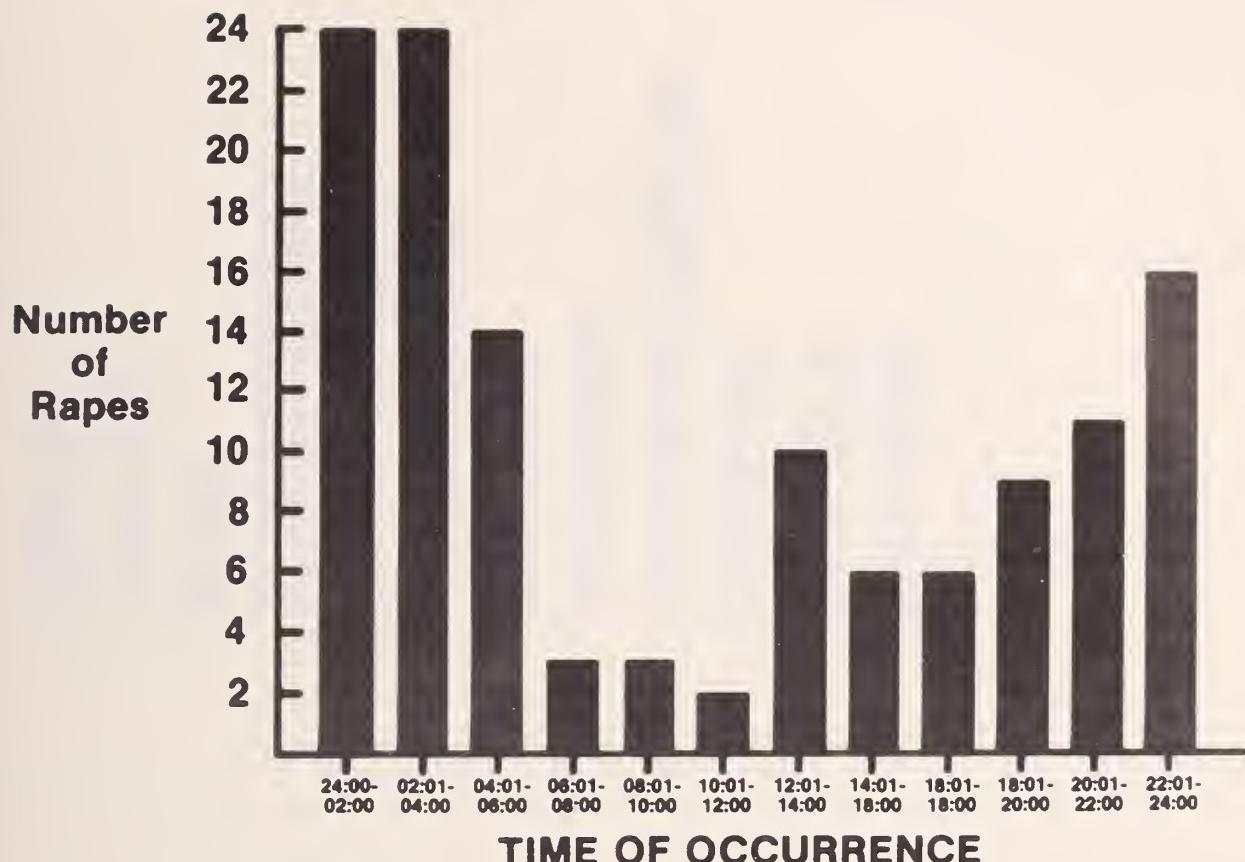


Figure 1. Rape is more likely to occur during the night-time hours.

suggest photographic documentation of physical injuries unless this can be done at the time of general anesthesia, should that be required for examination or repair of injuries.

The physician's primary legal duty is to collect objective physical findings that may or may not document penetration of the genitalia. Minor perineal lacerations ranging from perihymenal abrasions and contusions to vaginal tears or lacerations are generally observed in 80% of all victims of sexual attack examined. Most sexually-related perineal injuries are external and involve the posterior fourchette, labia minora or hymen. The anus should also be inspected for fissures or other trauma. Sphincter tone should be assessed and may be found to be decreased should anal intercourse have occurred.

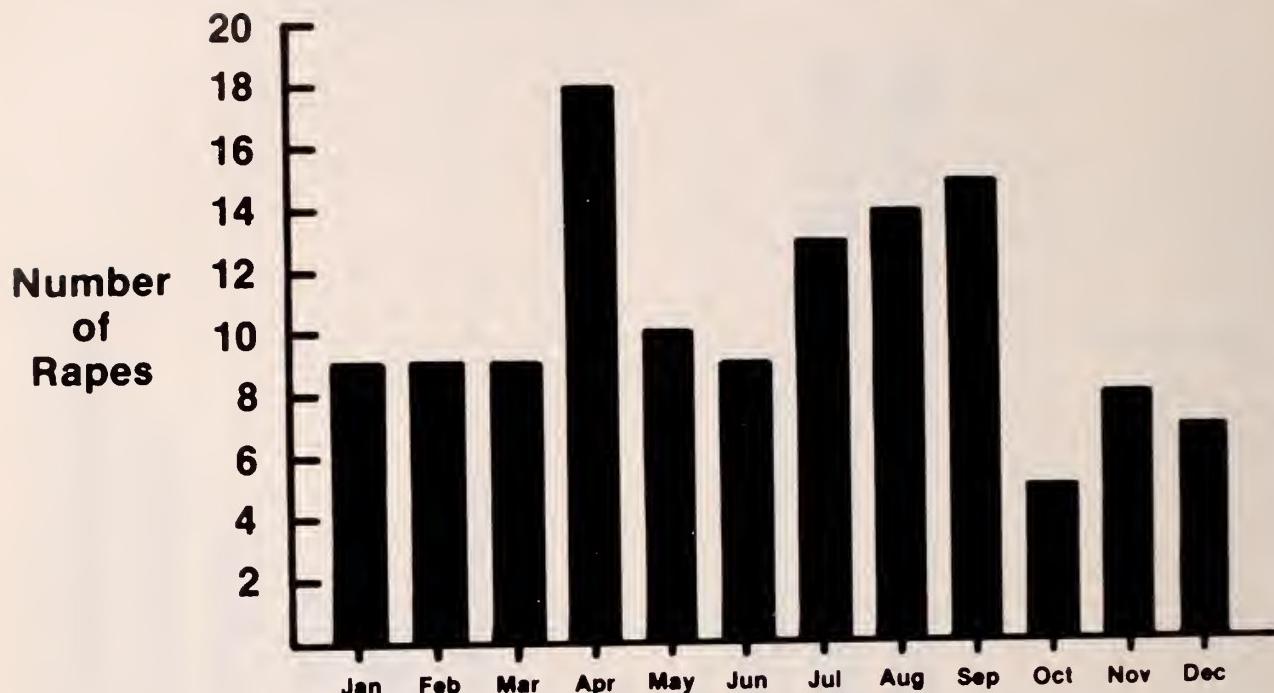
Prior to performing internal vaginal examination, the introitus should be cleaned with a dry swab to avoid subsequent suggestions that semen found in the vagina may have been carried in on the speculum. The speculum should be lubricated with water

only since jellies may have spermicidal effects and interfere with later sperm assessment.

Any discharges, bleeding or pools of liquid should also be noted with appropriate specimens taken using cotton swabs. The cervical os should be described and a gonococcal cervical culture and pap smear should be taken. Any necessary laceration repair can be done after specimen collection is completed. A bimanual examination should be done to determine the possibility of concurrent pregnancy and the presence of prior gynecological pathology as well as to appreciate excessive trauma-induced tenderness or hematoma formation.

Victims of sexual misuse often manifest a variety of laboratory evidence which should also be meticulously assessed. The collection of specimens during a rape examination can be easily and thoroughly accomplished by any physician with the aid of the available standardized rape kits, which contain the necessary equipment with instructions. The forensic objective here is to collect evidence pertaining to

## 1982 UMC EMERGENCY ROOM RAPE CASES



### Month of Occurrence

Figure 2. Rape seems to be a seasonal crime and the summer months have a higher incidence of cases.

acid phosphatase, sperm, ABO antigens, foreign hair and skin, as well as sweat and saliva. These specimens can document that intercourse has indeed taken place and perhaps confirm its time of occurrence.

The presence or absence of sperm, as well as its state of mobility and degree of degradation, can assist in determining the time of last intercourse. Sperm should be sought in or on the skin, introitus, endocervix, mouth, and anus as well as in the vagina. Because sperm may remain in the female genital tract for longer and variable time periods, the finding of nonmotile sperm is not firm evidence of recent intercourse in the sexually active person. However, due to the short half-life of prostatic acid phosphatase, this is a more sensitive indicator of recent intercourse than is nonmotile sperm. Various congenital abnormalities as well as surgical and other factors may result in absence of sperm from the assailant's semen making acid phosphatase determination even more important in documenting ejaculation.

During a rape evaluation information may be collected that may, through a process of suspect exclusion, identify the assailant and help to corroborate

the victim's charges. Since 80% of individuals secrete specific blood group antigens in saliva, sweat, semen and vaginal secretions as well as in blood, there is ample opportunity to find these proteins on the alleged victim's clothes and body. Furthermore, foreign hairs sampled from the victim may also help to identify an assailant.

All specimens should be submitted to the forensic laboratory for interpretation if the patient signs a written consent. The physician, however, is responsible for doing a wet prep of any vaginal secretion that is found and interpreting it immediately in the emergency room for the presence of sperm. Important serum samples to be obtained are serology for syphilis, drug or ethanol screen, depending on clinical history and findings, type and screen to determine the patient's blood type so that her ABO antigens can be compared with those collected, and a serum pregnancy test if indicated by the gynecological history and examination. Urine specimens should also be collected to examine for the presence of sperm, alcohol or drugs, as well as for pregnancy test. While the details of specimen collection may vary from institution to institution, the examining physician is ultimately responsible for the proper

collection, labelling, and delivery of this material in a sealed envelope to law enforcement agents.

Physical trauma resulting from alleged rape attack must be dealt with immediately, of course, as well as the potential complications of rape including pregnancy, venereal disease, and tetanus exposure. Psychologic sequelae should not be overlooked. While the risk of rape-related pregnancy is said to be only 1% of all cases, postcoital contraception is an option. It should be offered to those patients who are not using an effective form of contraception. Although the mechanism for the morning-after contraceptive technique is not entirely understood, estrogen in large doses effectively prevents conception provided it is administered within 72, but preferably 24 hours after exposure.

The original morning-after pill was diethylstibesterol given 25 mg orally, twice daily for five days. Alternative oral medications are ethinyl estradiol 5 mg once or twice daily for five days and conjugated estrogen 25 to 40 mg per day for three to five days. Intravenous (IV) regimens are conjugated estrogen 50 mg IV for two doses 24 hours apart or 25 mg IV daily for three days.

Estrogens given in the above manner will cause nausea and vomiting in 75% of women, so anti-emetics should be given. To minimize this nausea and vomiting, some recent studies have advocated a successful estrogen and progesterone combination in the form of two Ovral tablets taken immediately followed by a second dose 12 hours later. Informed consent should be secured prior to administering postcoital contraception since it may fail to prevent pregnancy and, perhaps, result in certain congenital fetal anomalies. Installation of an IUD as an alternative postcoital contraceptive has not proven to be effective, and its insertion can add to the trauma already experienced during the rape attack.

The potentiality of contracting venereal disease during rape is also a concern with the risk of contracting gonorrhea higher than that of syphilis. While one could wait for results of the gonococcal cervical cultures or serology titers, the acceptable management is to provide prophylactic measures against these venereal diseases.

Fortunately, prophylactic therapy consisting of 4.8 million units of aqueous procaine penicillin G given intramuscularly (IM) thirty minutes after one

gram of probenecid orally (PO) is not only effective in curing gonorrhea but will also eradicate incubating syphilis. Other appropriate regimens are: Ampicillin, 3.5 gm (or Amoxicillin 3 gm) PO plus probenecide, erythromycin 500 mg PO four times daily for five days, tetracycline (which of course is contraindicated in pregnancy) 1.5 gm PO followed by 500 mg PO four times daily for five days or spectinomycin 4 gm IM for the penicillin-allergic patient. Spectinomycin will cure gonorrhea but not syphilis. However, doxycycline 300 mg PO which is repeated in one hour may prevent syphilis. In light of the increased interest in *Chlamydia trachomatis* as an etiology of pelvic inflammatory disease, it may be indicated to provide prophylactic chlamydial therapy consisting of tetracycline 500 mg PO every 6 hours for 14 days.

The administration of the appropriate anti-tetanus vaccine to anyone with abrasions or lacerations is also indicated. Likewise, the physician cannot ignore the victim's possible psychological sequelae of a rape attack and may employ a social worker or psychiatrist for assistance.

As the physician completes his evaluation of the possible rape victim, it is important to remember that he is compiling a direct medical and legal report. He should well realize that statements or information having little medical relevance may have dramatic legal significance and that the determination of whether or not rape has occurred is a legal, not a medical decision. Just as he should have done when actually caring for the patient, he must, if summoned to testify, review his notes and report only his objective findings, avoiding terms like "alleged rape" or "alleged assault."

Understanding the criminal as well as the medical aspects of rape is vital to enable its thorough management. Even though a victim's self testimony is the most important piece of evidence in rape prosecution, the physician's statement and evaluation represent corroborative evidence that provides a data base for legal investigation of sexual misuse. ★★★

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#### Acknowledgement

Supported in part by the Vicksburg Hospital Medical Foundation.



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# Address of the President

**Ellis M. Moffitt, M.D.**  
**Jackson, Mississippi**

THIS HAS been a good year. Much has been accomplished because of your efforts.

There is no doubt much left to do, but competent and able hands are available to complete the tasks ahead as well as to confront new ones.

We began this year with a special session of this House of Delegates. You adopted a report and recommendations titled "Quality Health Care at a Reasonable Cost" which was printed in its entirety in the March issue of our medical journal.

There are six broad categories addressed in that important report. Each has a direct bearing on the cost of health care. I hope every effort will be made by this outstanding group of medical talent to bring the report to its full implementation.

I urge you to become so familiar with it that you can discuss health care costs on a moment's notice and emphasize what your state medical association is doing to control these costs.

Talk to your civic clubs and your medical groups. A speech is available from our MSMA office.

Your hospital administrator is aware of the report and interested in it. Talk to him about it and particularly about those items concerning hospitals.

In your delegate's folder today are recommendations for implementing the report. Your interest and support is sincerely needed if these recommendations are to be fully implemented.

Let me give you an example of what your interest and support mean with respect to what our association can accomplish. We sponsored two tort reform bills in the legislative session this year, both of which are recommendations of this House. One would abolish the collateral source rule and the other would limit recovery for non-economic losses. Both bills died in committee because not enough of you talked to your local legislators.

President, Mississippi State Medical Association, 1984-1985.  
Read before the House of Delegates, 117th Annual Session,  
May 16, 1985, in Biloxi, Mississippi.

*"I believe we must be the flag bearer for holding down the cost of health care, for it is our patients who ultimately suffer from this increasing cost. The greatest strength we have as physicians is the physician-patient relationship. Our greatest weakness has been our inability to mobilize successfully all of our grass-roots strength. Our unfulfilled promise is to move forward from being patient advocates to becoming patient activists."*

On the other hand, when the House of Representatives passed a six percent sales tax on professional services, you literally "rose up in arms." You button-holed your legislators when they were home on the weekends. You jammed the legislative switchboard at the capitol. Some of you even called the association office in Jackson to find out who your Senator and Representative are.

If the same enthusiasm had prevailed for the two tort reform bills, there is no doubt in my mind we would have that legislation on the books today.

Why does it always take a crisis to get us motivated? Dr. Sutherland, Medical Director of the Medical Assurance Company of Mississippi, says we are rapidly approaching a medical malpractice crisis in our state. One of the recommendations I wish to make to you today is that the association officially request the governor to appoint a committee to look into the medical malpractice situation in our state.

I would like to spend a few minutes now talking with you about membership in our association. Each year the president-elect, president, past president and the three vice-presidents meet to discuss membership strategies.

We have been concerned with retention of members and increasing membership in both MSMA and

the AMA. About 75 percent of the physicians in Mississippi are members of MSMA and about 75 percent of these are members of the AMA also.

As many of you know, there are an increasing number of women physicians in the United States. There were 69,000 in 1983, and this represented 13.4 percent of all physicians. Some 27 percent of these were members of the AMA.

About a third of the graduating class of our University of Mississippi School of Medicine are women. I have a strong feeling that most of them are not becoming members of organized medicine. I am happy to report that in our state we have a small group of women physicians working to increase their involvement at all levels.

The best and most effective way to increase membership in our association is a one-on-one, eyeball to eyeball, specialist to specialist solicitation. I recommend to you that this year we have our administrative staff mail each component society a list of non-MSMA-members in its area. I urge each member of the society to take a non-member's name for a one-on-one solicitation to join MSMA. I would like our MSMA membership to increase this next year to 85 percent of the physicians in the state.

The second, but no less important, part of membership support has to be for our national organization — the American Medical Association. The AMA is the only national organization capable of providing the strong leadership we need in Washington to lobby, to intervene, to modify and to shape the direction of health care legislation.

Only the AMA can represent all of us. No county society, no state society, and no specialty society can possibly have the strength of numbers, the data base, the financial and manpower resources and the perspective of the AMA.

At no time in history have physicians needed such influence so strongly and at no time has the AMA needed physicians so strongly.

There is a resolution in your packet recommending unified membership. This resolution has the endorsement of your officers and Board of Trustees, membership committee, and Central Medical Society. It will require a bylaws change. I recommend and urge passage of the resolution.

During this past year we have had to contend with two freezes in our professional fees while the cost of

keeping our offices open continued to rise. One freeze has been voluntary; the other mandatory.

Nationwide some 80 percent of our profession participated in an across the board voluntary freeze. This resulted in a \$1.5 billion dollar savings to our patients. We were happy to provide it as part of our contribution to improve the nation's sagging economy. You deserve to be commended for your efforts in this regard.

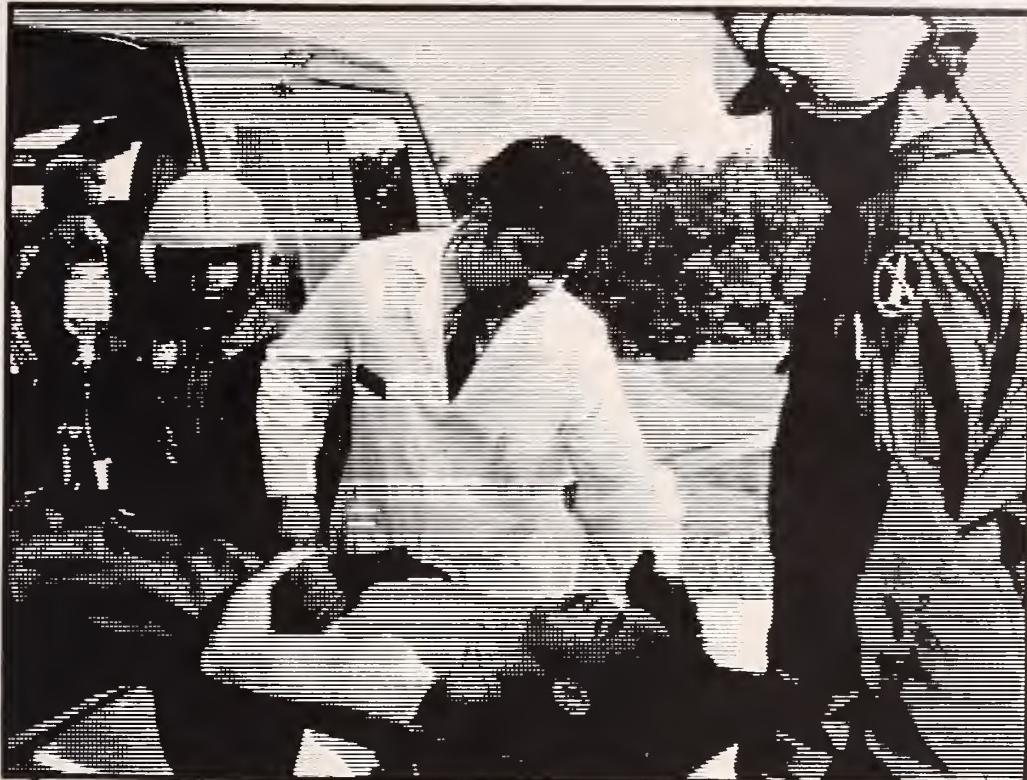
The mandatory freeze under Medicare is still in effect until October, and President Reagan has recommended its extension. Some 20 percent of the physicians in our state elected to be participating physicians under the Medicare freeze requirements. Prior to the freeze, almost 60 percent of physicians in the state accepted assignment on an individual basis.

I feel this is continuing because I know each of you are aware of the financial burden an illness can cause and will take this into consideration when a patient is financially disadvantaged.

In conclusion, I believe we must be the flag bearer for holding down the cost of health care, for it is our patients who ultimately suffer from this increasing cost. The greatest strength we have as physicians is the physician-patient relationship. Our greatest weakness has been our inability to mobilize successfully all of our grass-roots strength. Our unfulfilled promise is to move forward from being patient advocates to becoming patient activists.

Finally, I would like to deliver a few well deserved accolades to our administrative staff under the able direction of Charlie Mathews for making this such a delightful year with a minimum of problems — to Bucky Murphy for the excellent job of representing us during the legislative session; to Davis Richards who is new to most of you but who has been serving in the capacity of controller and has kept us solvent during the past year; to Cody Harrell who had to retire in the middle of the year but who continues to advise us on the many business affairs of our association he so ably handled for 15 years; to Patsy Silver for helping me become a writer; to Barbara Shelton for helping me keep track of membership statistics, and to Kay and Addie who are always cheerful and smiling. Thanks not just from me but from all of us. It has been a good year! ★★★

# **PHYSICIANS, A WEEKEND WITH THE RESERVE ISN'T JUST ANOTHER DAY AT THE OFFICE.**



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## The President Speaking

### Keeping the Home Court Advantage: Part 2

Ralph L. Brock, M.D.  
McComb, Mississippi

The Medical Assurance Company of Mississippi was formed eight short years ago following a special meeting of the House of Delegates of the Mississippi State Medical Association. Today it is a well established medical malpractice insurance company. It is providing malpractice coverage to approximately half of our membership at substantial savings over any other insurance coverage available in our state. There is a distinct advantage to having adequate coverage, available consultation, and help from members of our own association who speak our language and understand our problems.

It is now estimated that approximately one out of every four doctors practicing today can expect a lawsuit to be filed against them, and as much as we hate to think about being involved in a malpractice lawsuit, it is comforting to know that you have friends who will be on your side. It is extremely important that any incident that might lead to litigation be reported to the insurance company as soon as possible. Then while facts are fresh on your mind, write down the facts of the case and be sure that all medical records are complete. If notification is received that a lawsuit is being filed, the claims Committee of Medical Assurance will begin work immediately to gather facts in the case and decide whether or not a settlement should be offered or preparations be made to defend the case in court.

Before a case ever gets as far as a lawsuit, we have several opportunities to prevent a lawsuit from being filed and keep the situation where we, as attending physicians, have a tremendous amount of control over the way a case is handled and over attitudes and opinions, if the outcome of the case is anything less than perfect.

At the very beginning we have the right to even refuse to participate in the care of a patient if we feel that our training and experience is such that it would not be appropriate to render care in a given case. We need to be ready to admit our limitations and ask for consultation or even complete transfer of care of the patient to another physician if we feel we are not qualified to render care that would normally be expected. I think one of the hardest things that physicians have to learn to say is "I don't know."

When you accept the responsibility for care of a patient, keep a

(Continued on page 229)

## EDITORIALS

# JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION

VOLUME XXVI, Number 8  
AUGUST 1985

### Physicians in Wonderland

I used to think that I was the only one who ever read "Alice in Wonderland," but now I've decided that some other people must like it also . . . particularly those people who work out our PRO and DRG regulations — what with someone telling me the patient's stay in the hospital was too long; or one of those other ploys they use all too often to beat us down.

Now we wonder if we can justifiably admit the patient. We wonder how long we can keep the patient in the hospital. We wonder whether we'll be paid or not. We wonder if we have exceeded the hospital's DRG payment amount. We wonder . . . yes, we wonder. It really is a wonderland but not exactly a wonderful environment in which to practice medicine. Actually many of us wonder just how much longer we can or are willing to keep up this "Cat and Mouse" game with the federal government.

We may wonder what will happen to the preachers when the devil's been saved, but have you applied this thinking to our own plight? We really don't have to wonder what is to happen when the federal government has finally got all its regulations complete. We have seen federally controlled medicine in Great Britain. You and I know (although we may avoid thinking about it) that as we go along agreeing with all their regulations, then their regulations become more stringent and more all-encompassing.

I am "over the hill" practice-wise (30 years) and so are many of you reading this. Are we going to continue to ignore the direction in which medicine is going? Or are we going to buckle down and tell our legislators and congressmen how we feel?

I agree with the statement made by one of our recent MSMA presidents who said that "Death of the patient is the epitome of the federal government's payment system, for then it does not have to

pay the patient any more or the hospital or doctor. As Lewis Carroll wrote in "Alice in Wonderland": "Twas brillig and the slithy toves did gyre and gimble in the wabby, all mimsy were the borogoves and the mommeraths outgrab."

Truly a brilliant verse! When I say it I feel that I must be communicating with the minds of those who devised the DRG/PRO regulations. . . . I just wonder what it means.

Thank God I'm a physician in this Wonder-land.

JOE JOHNSTON, M.D.  
Associate Editor

### THE PRESIDENT SPEAKING

(Continued from page 228)

record of what you do, and particularly if you deviate from what you consider standard care because of the given circumstances, be sure and get this in the medical record in such a way that your reasons will not be misunderstood. Keep the patient and the family informed as to the conditions and progress and any possible complications that might be expected. It is much easier to apologize later to a family that you might have alarmed unnecessarily than it is to try to explain a sudden complication or even death that was unexpected.

There is an old saying that the patient that sits down and eats with his doctor is not likely to sue him. There are too many cases that contradict this statement to make this applicable to the time in which we live. However, it is hard to argue with the value of good communication between the doctor and patient.

One of the best stimulants that I know of to keep accurate medical records is to have the experience of reading one of your progress notes out loud in open court to a jury, and not be able to change a comma, period, or spelling of a word. This is a most sobering

experience. A good, well documented medical record can in itself prevent a lawsuit from going to trial. This is where we come in as attending physicians in keeping our home court advantage. By all means, you want to stay out of the courtroom, if at all possible. This is the home court of trial lawyers, and it is at this point that the home court advantage switches to them.

I wish that I could say that defensive medicine and ordering unnecessary tests would soon be a thing of the past; however, we are faced with the fact that some of this is with us and may account for as much as 10 to 15 percent of medical expenses in a given case. I would encourage you to keep this down to a minimum, and be specific in your orders about what you want done with the patient. Keep your medical records timely and pertinent. Do not be afraid to ask for help and make yourself readily available to the patient and the family and keep them informed on a regular basis. You will then have the best chance to keep the home court advantage.

## **Medico-legal Brief**

### **Court Affirms Right To Exclude Uninsured Doctors**

A hospital has the right to require every physician on its staff to carry malpractice insurance, the New Mexico courts have ruled.

That right was challenged by a doctor who charged that failure to renew his contract because he was uninsured had deprived him of his rights and constituted an unwarranted interference in his relationship with his patients. A number of his patients joined the doctor in his suit against the hospital.

Also at issue in the case was the jurisdiction of the courts over the conduct of a private hospital.

The suit never went to a jury because the judge of a New Mexico district court summarily dismissed the case. The hospital had raised the jurisdictional objection on the grounds that, as a private institution, it had the right to make its own personnel decisions without interference from the courts.

The state court of appeals, however, noted that the demography of the West obliged the courts to take a hand. Towns are few and far between in New Mexico, said the appellate judges. To deny him staff privileges can thus drive a doctor from his home or deprive him of his opportunity to practice.

Furthermore, said the appellate judges, a hospital isolated in desert or mountain country holds a virtual monopoly on health care. "Whereas most free enterprise is ideally governed by supply and demand, and will, therefore, conform to consumer needs, the medical industry operates outside of this system of self-regulation," they declared.

The courts said the appellate judges were not acting as a "super board of directors" as claimed by the hospital but were exercising a limited supervision in the absence of an "economic mechanism which encourages hospitals to make consumer-sensitive policy choices."

The doctor and his patients had argued that the requirement to carry malpractice insurance was arbitrary because it provided no real protection for the patient but merely a fund to "buy off" an already injured person. The plaintiffs also challenged the hospital's claim that a staff doctor's failure to carry malpractice insurance would increase the hospital's premiums.

The doctor suggested that the hospital's failure to renew his contract involved personal motives for which the issue of his malpractice insurance was merely a cover.

In unanimously affirming the lower court's decision to dismiss the doctor's case, three judges of the New Mexico court of appeals held that whatever personal antagonism might have been involved it was certainly not the only reason for the hospital's decision. They also ruled that there was a legitimate interest in requiring staff physicians to carry malpractice insurance because, although it did not protect patients before they suffered mishap, it provided a source of compensation afterwards in cases involving no hospital negligence.

*692 P.2d 1350 (N.M. App. 1984)*

## **Next Month in JOURNAL MSMA**

**"A System That Cares" — Remarks of the President of the AMA**

**Ten Year Experience with Total Hip Arthroplasty**

**Acromegaly**

**Recent Advancements in the Treatment of Prostate Cancer**

## MEDICAL ORGANIZATION

### Dr. Virginia Tolbert Dies in Tupelo

Dr. Virginia Stansel Tolbert of Ruleville, a member of MSMA's Board of Trustees, died June 25 at North Mississippi Medical Center in Tupelo. The 66-year-old family physician, the first woman elected to the MSMA board, had been hospitalized since June 8 for complications from a diabetic condition.

Her death was described as a loss by her colleagues in the Mississippi State Medical Association and by fellow members of the state Corrections Board, on which she was serving her second term. She was first appointed to the Corrections Board by Governor William Winter after her retirement in 1982 as medical director of the Mississippi State Penitentiary at Parchman.

Dr. Tolbert graduated as valedictorian of Ruleville High School at the age of 14. She received her undergraduate degree, magna cum laude, from Mississippi State College for Women. After receiving her M.D. degree from the University of Tennessee, she interned at Jefferson Hillman Hospital in Birmingham, and returned to Ruleville in 1951 to enter private practice.

A past president of Delta Medical Association, Dr. Tolbert was active in the Mississippi Academy of Family Physicians and served on the board of the Mississippi Foundation for Medical Care. She was on the board of directors of the Mississippi Heart Association, and recently received the Golden Heart Award. In 1974 she received the MSMA Robins Award for Community Service.

After serving for three years on the Ruleville Board of Aldermen, she was elected mayor in 1973. She served on the executive committee of the Mississippi Municipal Association and was a member of the advisory board of South Delta Planning and Development Corp.

Dr. Tolbert was charter member and past president of the Ruleville Business and Professional Women, and served the state Business and Professional Women as district director. In 1975 she was chosen that organization's Mississippi Woman of Achievement.

Dr. Tolbert was a member of the Ruleville United Methodist Church, where she served on the adminis-

trative board and was chairman of pastor-parish relations.

Survivors include her husband, Dr. Earl P. Tolbert of Ruleville, two children, six grandchildren, and four great-grandchildren.

### Moore Named Top Medical School Graduate



Malcolm Sidney Moore, Jr., of Tupelo received the M.D. summa cum laude in University of Mississippi Medical Center Commencement exercises. He also received the University's Leathers Award as the graduating medical student with the highest academic average. Recently Moore was named recipient of the Mississippi State Medical Association Award for superior leadership qualities and scholarship. Dr. Norman C. Nelson, right, is vice chancellor for health affairs. Dr. Moore is the son of Dr. Malcolm Moore and Dr. Nell Moore.

### 135 Receive M.D. Degrees At Medical School Commencement

Ole Miss alumnus Judge E. Grady Jolly told University of Mississippi Medical Center graduates Sunday that "young professionals must early recognize and prepare to avoid the pitfalls that have been planted in the contemporary professional world, if the great personal promise of graduation day is to be fulfilled."

Judge Jolly, who was appointed to the United

States Court of Appeals, Fifth Circuit, in 1982, addressed 373 students receiving degrees in the health sciences at City Auditorium.

The number included 135 who received the M.D., 108 for the B.S. in nursing, 39 for the D.M.D., 13 the B.S. in medical technology, 23 for the B.S. in physical therapy, 16 for the B.S. in nurse anesthesiology, 13 for the B.S. in medical record administration, 12 for the B.S. in respiratory therapy, and one for the B.S. in cytotechnology.

Also eight for the M.S. in nursing, two for the master of combined sciences, three for the M.S. and one for the Ph.D.

Chancellor R. Gerald Turner conferred the degrees. Candidates were presented by Dr. Norman C. Nelson, vice chancellor for health affairs and School of Medicine dean; Dr. Edrie J. George, School of Nursing dean; Dr. Thomas E. Freeland, School of Health Related Professions dean; Dr. Wallace V. Mann, School of Dentistry dean and Dr. Ben H. Douglas, assistant vice chancellor for graduate studies and chairman of the Graduate Council at the Medical Center.

Malcolm Sidney Moore, Jr., son of Drs. Malcolm and Nell Moore of Tupelo, was recognized as the top medical school graduate. Dr. Moore, who earned his degree summa cum laude, received the University's Leathers Award as the graduating medical student with the highest academic average. Dr. Moore will intern at University Hospital at the University of Mississippi Medical Center in Jackson. He completed undergraduate work at Ole Miss in Oxford.

Magna cum laude graduates in the School of Medicine were Roland Joseph Mestayer III of Pascagoula, Bonnie L. Noe of Starkville, and Walter Wesley Woody of Shannan.

Cum laude medical school graduates included Ralph Creyton Atkinson III of Clinton, Gilda Montalvo Bradford of McComb, and Nancy Jayne Kurzik of Jackson.

## UMC Announces Faculty Promotions

Seven University of Mississippi Medical Center faculty members reached the rank of professor in promotions announced on July 1 by Dr. Norman C. Nelson, Medical Center vice chancellor for health affairs and medical school dean.

Dr. Nelson announced the changes in the status

following approval by the Board of Trustees, State Institutions of Higher Learning.

Moving up to the rank of professor in the School of Medicine were Dr. E. David Crawford and Dr. Ronald Krueger in surgery (urology), Dr. Durisala Desaiah in neurology, Dr. Jeffrey A. Kelly in psychiatry (psychology), and Dr. Angel Markov and Dr. James T. Thigpen in medicine.

In Centerwide faculty promotions, Dr. Ben R. Clower was named professor of anatomy.

School of Medicine faculty promoted to the rank of associate professor in July were Dr. William C. Cushman and Dr. Valee Harrisdangkul in medicine, Dr. Connie S. McCaa in surgery (ophthalmology), Dr. S. H. Subramony in neurology, Dr. James N. Martin in obstetrics-gynecology, Dr. Michael H. LeBlanc in pediatrics, Dr. John A. Fairbank in psychiatry, and Dr. Bharti R. Patel in radiology.

Those promoted to the rank of associate professor in the centerwide faculty were Dr. Norman A. Capra in anatomy, Dr. Terry M. Dwyer and Dr. Thomas H. Adair in physiology/biophysics, Dr. Charles L. Woodley in biochemistry, and Dr. Thomas M. Buttke in microbiology.

School of Medicine faculty promoted to the rank of assistant professor were Dr. Lyle D. Zardiackas in surgery (orthopedics), Dr. Donna K. Gates in pathology and Dr. William R. Smith in medicine.

Dr. Nelson also announced the promotions of 13 clinical faculty members. Dr. Heber Ethridge of Jackson was promoted to clinical professor of surgery (plastic). Promoted to clinical associate professor of surgery were Dr. Jamil G. Nassar of Jackson (ophthalmology); Dr. Benton M. Hilbun of Tupelo and Dr. Douglas Godfrey of Jackson (plastic); Named to clinical assistant professor of surgery were Dr. Thomas K. Billups of Tupelo; Dr. William O. Bobo of Jackson, Dr. William H. Wallace of Jackson, and Dr. Robert A. Smith of Jackson (plastic); Dr. Wilson Moak of Jackson, Dr. John B. Ederington of Vicksburg, and Dr. Stacy Davidson of Cleveland (ophthalmology); and Dr. Jimmie L. Hamilton of Tupelo and Dr. Hohnnie W. Williamson of Tupelo (general and vascular).

An Ole Miss graduate, Dr. Etheridge earned the MD degree at Louisiana State University. He did his internship at Mississippi Baptist Hospital and took residencies in general and plastic surgery at UMC, joining the clinical faculty in 1960. The acting chief of the Division of Plastic Surgery, he is in private practice in Jackson.

## PERSONALS

JOHN R. BISE III of Jackson attended a meeting of the American Society for Laser Medicine in Orlando, Florida and participated in a laser conference at Ravenswood Medical Center in Chicago.

JOHN BOWER of Jackson was re-elected president of the Renal Physicians Association at the annual meeting held in Scottsdale, Arizona.

THAIS E. BROWN of Jackson announces the opening of her office for the practice of family medicine at 5606 Old Canton Road.

ROBERT T. CATES of Ridgeland has been recertified by the American Academy of Family Physicians.

JAMES W. COOK of Pearl announces the association of MICHAEL G. CONNER for the practice of family medicine and pediatrics.

DAVID CRAWFORD of UMC presented a paper at the American Urological Association meeting in Atlanta in May.

HENRY DEWITT, JR. of Laurel announces the association of DAVID A. HARRIS for the practice of anesthesiology.

ALBERT DIAZ of Biloxi has been accepted into membership of the American Society of Bariatric Physicians.

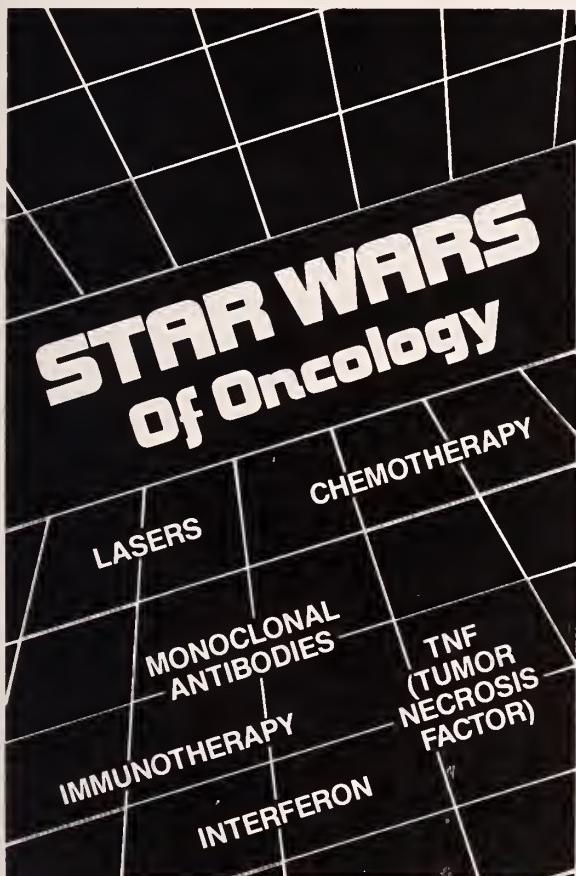
EDGAR DRAPER of UMC was a consultant at Gulfport VA Medical Center in May and also spoke at St. Elizabeth Hospital in Washington, DC.

WILLIAM W. EAST and T. KEITH EVERETT of Philadelphia announce the association of RANDY H. RUSSELL for the practice of ophthalmology.

RICHARD FIELD of Centreville was elected to a three-year term on the Board of Regents of the American College of Surgeons.

W. R. GILLIS of UMC lectured in the Department of Medicine at the University of Alabama at Birmingham.

GEORGE C. HAMILTON of Jackson is program chairman for the Southern Psychiatric Association's annual meeting in Palm Beach, Florida, next month.



### STARS WARS of Oncology

#### ★ Lasers ★ Chemotherapy ★ Monoclonal Antibodies

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**DATE:** Friday, November 1, 1985

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**FEE:** \$65.00

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Free for medical students

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**Richard M. Dwyer, M.D.**—Laser Endoscopy Medical Group, Inc., Los Angeles, CA; Chief of Endoscopy, Harbor General Hospital, Torrance, CA; Associate Clinical Professor of Medicine, U.C.L.A.—“Management of CA of GI tract, bladder tumors, and pulmonary lesions.”

**Thomas C. Merigan, M.D.**—Chief, Division of Infectious Diseases, Stanford University—“Immunotherapy of cancer in its broadest aspects: Interferon. Monoclonal antibodies.”

**John McDonald, M.D.**—Chairman, Oncology Department, University of Kentucky—“Defense establishment of medicine . . . oncology. Recent developments in tumor therapy with emphasis on those tumors which are impressively benefited by therapy.”

## PERSONALS/Continued

JAMES D. HARDY of UMC lectured at a meeting of the Society for Surgery of the Alimentary Tract in New York.

JOHN E. HARRIS of Okolona has been recertified by the American Academy of Family Physicians.

W. ARNOLD HULL and JOE A. HULL of Indianola announce the association of W. WADE DOWELL and PHIL NORSWORTHY for the practice of family medicine.

J. H. JOHNSTON III of Jackson was honored by the American Society of Gastrointestinal Endoscopy for distinguished achievement for his audiovisual presentation during the society's meeting in New York.

DON MARASCALCO announces the opening of his office for the practice of ophthalmology at 1301 20th Avenue in Meridian.

G. RODNEY MEEKS of UMC made a presentation at a meeting of the American College of Obstetricians and Gynecologists in Washington, DC.

JOHN BENJAMIN MILAM of Jackson has been selected to visit the People's Republic of China with thirty U.S. physicians.

RICHARD MILLER of UMC spoke on pediatric trauma at a Trauma Symposium held in Biloxi.

JOHN MORRISON of UMC spoke at an Outreach Education Course in Biloxi.

CHARLES S. O'MARA of Jackson was inducted into the International Society for Cardiovascular Surgery at the society's recent annual meeting in Baltimore, Maryland.

JUDITH G. PARKER of Brandon announces the association of DENNIS W. ROWLEN for the practice of pediatrics at Rankin Children's Group, 348 Cross-gates Boulevard.

MADHAVAN PISHARODI announces the opening of his office for the practice of neurosurgery at 2500 5th Street North in Columbus.

GEORGE D. PURVIS of Jackson was installed as president of the Mid-America Orthopaedic Association at its recent annual meeting.

DAVE ALLEN ROBERTS has associated with GEORGE WILKERSON of Hattiesburg for the practice of neurology.

KELLY S. SEGARS, SR. of Iuka announces the association of K. SCOTT SEGARS, JR. in the practice of internal medicine.

DAN R. THORNTON, JR. of Meridian represented the American College of Obstetricians and Gynecologists at the fifth annual clinical meeting of the Nurses Association of American College of Obstetricians and Gynecologists in New Orleans and delivered the welcoming address.

W. LAMAR WEEMS of Jackson was elected president-elect of the American Association of Clinical Urologists during the association's annual meeting in Atlanta.

JOHN J. WHITE of Jackson has been elected president-elect of the Louisiana-Mississippi Ophthalmological and Otolaryngological Society. Elected to other posts were WILSON E. MOAK of Jackson, secretary-treasurer; ERIC E. LINDSTROM of Laurel, councillor; and MYRON W. LOCKEY of Jackson, alternate delegate to the American Academy of Otolaryngology-Head and Neck Surgery.

WINFRED L. WISER of UMC made a presentation to the Callender Society Meeting in Sea Island, Georgia.

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## NEW MEMBERS

BOBO, RUSSELL W., Ocean Springs. Born San Antonio, TX, May 20, 1954; M.D., University of Texas Medical Branch, Galveston, 1979; interned and anesthesiology residency, Wilford Hall USAF Medical Center, San Antonio, 1979-82; elected by Singing River Medical Society.

CUNNINGHAM, JANET A., New Hebron. Born Boston, MA, April 13, 1954; M.D., Wright State University School of Medicine, Dayton, OH, 1981; interned and family practice residency, St. Joseph Medical Center, South Bend, IN, 1981-84; elected by South Central Medical Society.

DAWKINS, CRAIG A., Jackson. Born Miami, FL, April 4, 1947; M.D., University of Mississippi

School of Medicine, Jackson, 1979; interned and general surgery residency, Baylor University, Dallas, 1979-81; urology residency, University Medical Center, Jackson, 1981-84; elected by Central Medical Society.

GHERAIBEH, JAFER NASER, Grenada. Born Irbid-Jordan, Dec. 27, 1947; M.D., Alexandria Faculty of Medicine, Egypt, 1971; interned St. John's Mercy Medical Center, St. Louis, MO, one year; orthopedic residency, Richland Memorial Hospital, Columbia, SC, 1975-78 and Adelaide Childrens Hospital, Australia, 1978-1979; elected by North Central Medical Society.

SCHILLING, JOHN PATRICK, Greenville. Born Atlanta, GA, June 11, 1950; M.D., Medical College of Georgia, Augusta, 1978; interned and ob-gyn residency, Fitzsimons Army Medical Center, Aurora, CO, 1978-82; elected by Delta Medical Society.

## HEALTH CARE AT ITS BEST: AIR FORCE MEDICINE

AIR FORCE MEDICINE IS ONE OF OUR BEST BENEFITS, AND WITH YOUR HELP, WE'LL KEEP IT THAT WAY. THE AIR FORCE NEEDS PHYSICIANS SUCH AS YOU TO BECOME MEMBERS OF OUR HEALTH CARE TEAM.

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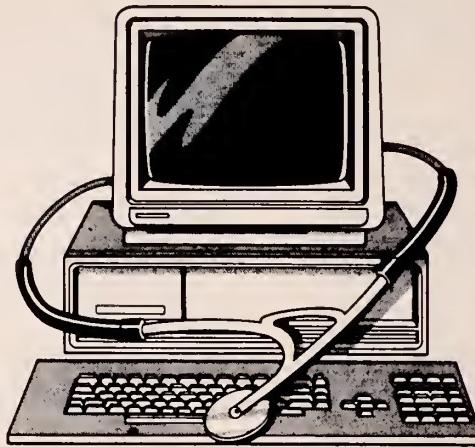


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*See brief summary of prescribing  
information on next page.*

# ZORprin® (aspirin) ZERO ORDER RELEASE

Before prescribing see complete prescribing information. The following is a brief summary.

**INDICATIONS AND USE** ZORprin® is indicated for the treatment of rheumatoid arthritis and osteoarthritis. The safety and efficacy of ZORprin® have not been established in those rheumatoid arthritis patients who are designated by the American Rheumatism Association as Functional Class IV: incapacitated; largely or wholly bedridden; or confined to wheelchair; little or no self-care.

**CONTRAINDICATIONS** ZORprin® should not be used in patients known to be hypersensitive to salicylates or in individuals with the syndrome of nasal polyps, angioedema, bronchospastic reactivity to aspirin, renal or hepatic insufficiency, hypoprothrombinemia or other bleeding disorders. ZORprin® is not recommended for children under 12 years of age. It is contraindicated in all children with fever accompanied by dehydration.

**WARNINGS** ZORprin® should be used with caution when anticoagulants are prescribed concurrently, since aspirin may depress the concentration of prothrombin in plasma and increase bleeding time. Large doses of salicylates may have hypoglycemic action and enhance the effect of the oral hypoglycemics; concomitant use therefore is not recommended. However, if such use is necessary, dosage of the hypoglycemic agent must be reduced. The hypoglycemic action of the salicylates may also necessitate adjustment of the insulin requirements of diabetics. While salicylates in large doses have a uricosuric effect, smaller amounts may reduce the uricosuric effect of uricosuric agents.

**USE IN PREGNANCY** Aspirin can cause fetal harm when administered to pregnant women. Aspirin interferes with maternal and infant blood clotting and may lengthen the duration of pregnancy and parturition. Aspirin has produced teratogenic effects and increases the incidence of stillbirths and neonatal deaths in animals. If this drug is used during pregnancy, or if the patient becomes pregnant while taking this drug, the patient should be apprised of the potential hazard to the fetus. Aspirin should not be taken during the last 3 months of pregnancy.

**PRECAUTIONS** Appropriate precautions should be taken in prescribing ZORprin® for patients who are known to be sensitive to aspirin or salicylates. Particular care should be used when prescribing this medication for patients with erosive gastritis, peptic ulcer, mild diabetes or gout. As with all salicylate drugs, caution should be exercised in prescribing ZORprin® for those patients with bleeding tendencies or those on anticoagulant drugs. Large doses of salicylates should be avoided in patients with clear evidence of carditis in order to avoid exacerbation of disease or adrenal insufficiency; patients who have been on prolonged corticosteroid therapy should have their therapy tapered slowly rather than discontinued abruptly when ZORprin® (aspirin) is made a part of the treatment program. Patients receiving large doses of aspirin and/or prolonged therapy may develop mild salicylate intoxication (salicylism) that may be reversed by reduction in dosage. Salicylates can produce changes in thyroid function tests. Salicylates should be used with caution in patients with severe hepatic damage, preexisting hypoprothrombinemia, Vitamin K deficiency and in those undergoing surgery. Since aspirin release from ZORprin® is pH dependent, it may change in those conditions where the gastric pH has been increased via antacids, gastric secretion inhibitors or surgical procedures.

**ADVERSE REACTIONS** Hematologic: Aspirin interferes with blood clotting. Patients with a history of blood coagulation defects or receiving anti-coagulant drugs or with severe anemia should avoid ZORprin®. Aspirin used chronically may cause a persistent iron deficiency anemia.

**Gastrointestinal**: Aspirin may potentiate peptic ulcer, and cause stomach distress or heartburn. Aspirin can cause an increase in occult bleeding and in some patients massive gastrointestinal bleeding. However, the greatest release of active drug from ZORprin® is designed to occur in the small intestine over a period of time. This has resulted in less symptomatic gastrointestinal side effects.

**Allergic**: Allergic and anaphylactic reactions have been noted when hypersensitive individuals have taken aspirin. The most common allergic reaction to aspirin is the induction of bronchospasm with asthma-like symptoms. Other reactions are hives, rash, angioedema, as well as rhinitis and nasal polyps. Fatal anaphylactic shock, while not common, has been reported.

**Central Nervous System**: Taken in overdoses, aspirin provides stimulation which may be manifested by tinnitus. Following initial stimulation, depression of the central nervous system may be noted.

**Renal**: Aspirin may rarely cause an increase in the severity of chronic kidney disease.

**Hepatic**: High doses of aspirin have been reported to produce reversible hepatic dysfunction.

**OVERDOSAGE**: Overdosage, if it occurs, would produce the usual symptoms of salicylism, tinnitus, vertigo, headache, confusion, drowsiness, sweating, hyperventilation, vomiting or diarrhea. Treatment for mild intoxication, emptying the stomach with an emetic, or gastric lavage with 5% sodium bicarbonate. Individuals suffering from severe intoxication should, in addition, have forced diuresis by intravenous infusions of saline and sodium bicarbonate or sodium lactate, dextrose solution. In extreme cases, hemodialysis or peritoneal dialysis may be required.

**HOW SUPPLIED**: ZORprin® tablets 800 mg, plain, white capsule-shaped tablets. Bottles of 100 tablets.

**CAUTION**: Federal Law prohibits dispensing without prescription. Manufactured and distributed by Boots Pharmaceuticals, Inc. Shreveport, LA. 71106 USA

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## RECOLLECTIONS

Prophetic words appeared in the August 1965 issue of JOURNAL MSMA, which reported the transactions of the House of Delegates (97th Annual Session, Biloxi).

Delegates had taken action to restate opposition to the Medicare bill then pending before the U.S. Senate, and specifically reiterated a position against compulsory inclusion of physicians. Delegates also opposed a congressional move to redefine four medical specialties as hospital services.

An accompanying editorial stated that "the grand design of Medicare runs considerably deeper than government financing of hospital care through the Social Security system." The article predicted the complete reorganization of medical service in the United States as to distribution, clinical environment, and financing.

Noting that the move to reorganize the entire pattern of medical service had begun, the editorial quoted an official policy statement of the AMA, adopted in 1930:

"When medical service is made impersonal, when the humanities of medicine are removed, when the coldness and automaticity of the machine are substituted for the humane interest inherent in individual service and the professional and scientific independence of the individual physicians, the greatest incentive to scientific improvement will be destroyed and the public will be poorly served."

Ten years later, JOURNAL MSMA reported the transactions of the 107th Annual Session, during which delegates again considered Medicare matters, along with malpractice issues.

That year delegates called for adjustment of payment of professional fees under Medicare which had resulted in unequal payment for comparable services between Mississippi and other states. Delegates also recommended changes in the state's legal system to handle malpractice claims to include arbitration of such claims, the establishment of reasonable limits on contingency fees and a reduction of the statute of limitation for such claims.

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The Mississippi Disability Determination Services now has a program available for medical society meetings and hospital staff meetings. The purpose of this program is to explain how the disability determination process works, its historical background, its basis in legality and its documentation requirements. Any group interested in this presentation should also contact the Medical Relations Office.

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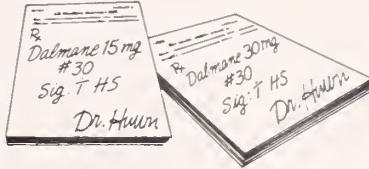
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**References:** 1. Kales J, et al. *Clin Pharmacol Ther* 12:691-697, Jul-Aug 1971. 2. Kales A, et al. *Clin Pharmacol Ther* 18:356-363, Sep 1975. 3. Kales A, et al. *Clin Pharmacol Ther* 19:576-583, May 1976. 4. Kales A, et al. *Clin Pharmacol Ther* 32:781-788, Dec 1982. 5. Frost JD Jr, DeLucchi MR, *J Am Geriatr Soc* 27:541-546, Dec 1979. 6. Dement WC, et al. *Behav Med*, pp 25-31 Oct 1978. 7. Kales A, Kales JD. *J Clin Psychopharmacol* 3:140-150, Apr 1983. 8. Tennant FS, et al. Symposium on the Treatment of Sleep Disorders, Teleconference, Oct 16, 1984. 9. Greenblatt DJ, Allen MD, Shoder RI. *Clin Pharmacol Ther* 21:355-361, Mar 1977.



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**Contraindications:** Known hypersensitivity to flurazepam HCl; pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Women patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patient to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

**Warnings:** Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age.

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**Adverse Reactions:** Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdose, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, onorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase, and porphobilinogen reactions, e.g., excitement, stimulation and hyperactivity.

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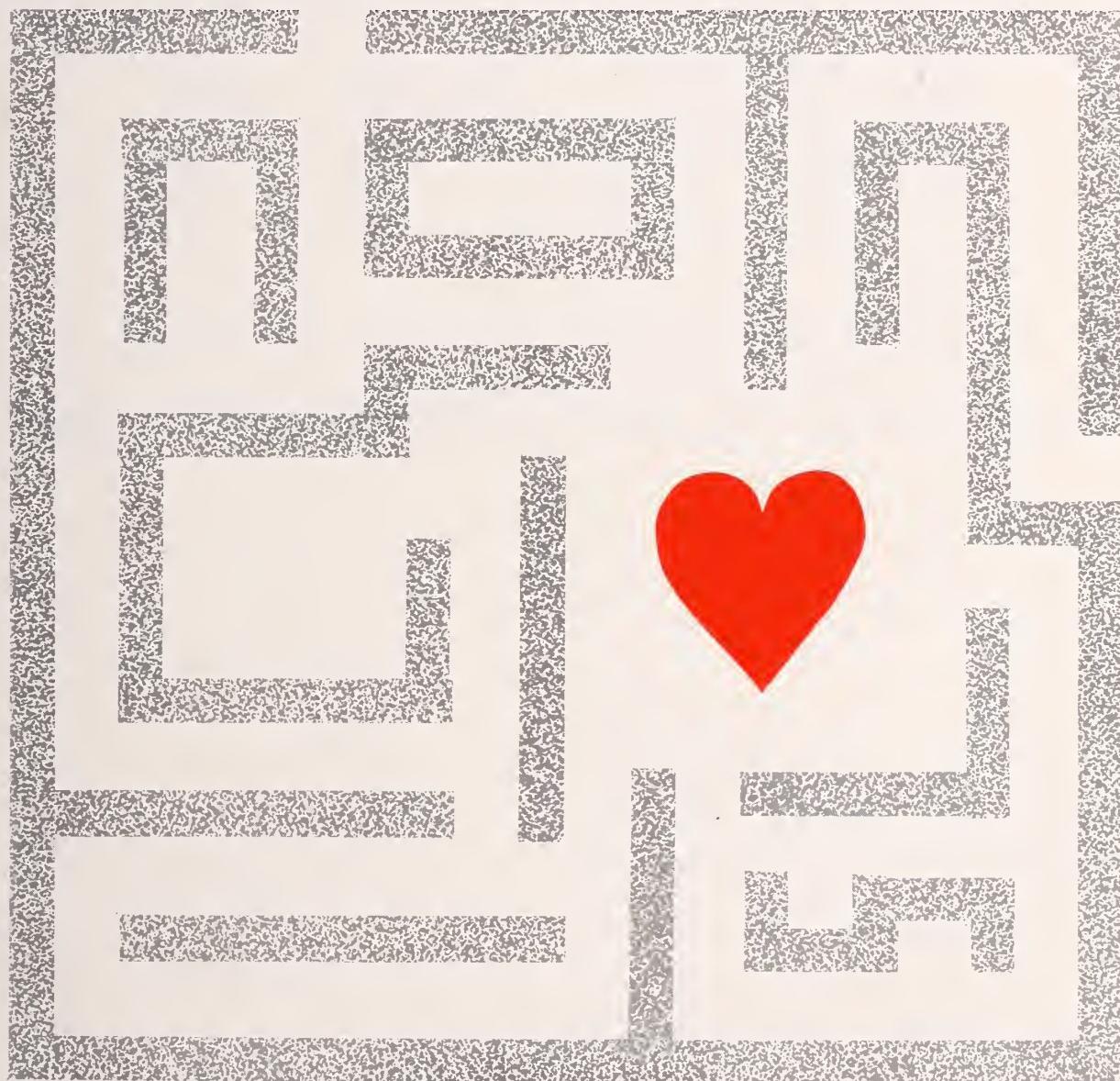
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September 1985

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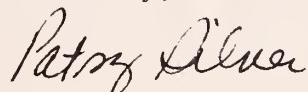
Beginning this month MSMA-sponsored public service announcements will air on TV and radio stations across the state. The PSAs are part of a public education campaign which will feature information about alcohol abuse, good health for the elderly, and changes taking place in the health care field. MSMA will offer to the public a free booklet on the latter subject.

The association's overall public relations effort includes an existing program designed to benefit you, the profession, and your patients. It's called CommuniCare, and its purpose is to let patients know that physicians are eager to communicate. Improved communications leads to better patient-physician rapport, which has been identified as the most effective method for reducing the risk of a malpractice suit. Better communications with the public was cited as the profession's most pressing need in a 1983 MSMA member survey. CommuniCare seeks to fill those needs. You can help make CommuniCare a success by displaying brochures in your reception area. For a supply, please call the MSMA office.

Part of the AMA's public awareness program to enhance the image of the physician will begin this month, with test broadcasting of a commercial and an "infomercial" in Des Moines and Kansas City. Both messages will deal with the professional liability crisis, and a follow-up survey will be conducted to determine the effectiveness of the messages. The AMA's five-point public relations program will attempt to increase the public's awareness that physicians are their patients' best advocates.

MSMA's annual Leadership Award to a UMC medical student demonstrating exceptional leadership and scholarship achievement will be renamed the Dr. Virginia S. Tolbert Award. Dr. Tolbert, who was serving on the MSMA Board of Trustees at the time of her death on June 25, had an extensive record of professional and civic service, including membership on the state Board of Corrections and Mayor of Ruleville. In 1974 she received MSMA's Robins Award for Community Service.

Sincerely,



Patsy Silver  
Managing Editor

Roche salutes

# MISSISSIPPI MEDICINE TODAY

## Na<sup>+</sup>-K<sup>+</sup> balancing act

"The sodium-potassium ratio in the diet should be considered a major controlling factor of blood pressure," says Dr. Herbert G. Langford of Jackson's University of Mississippi Medical Center.<sup>1</sup> Among cultures with a low incidence of hypertension, the diet consists of little sodium and large amounts of potassium from fruits and vegetables. As sodium intake increased in modern civilizations, potassium decreased. Dr. Langford thinks that low potassium may be considered an "unindicted co-conspirator in the hypertension crime." And he speculates that "efforts to increase potassium intake may be as feasible and fruitful as efforts to decrease our sodium intake."

## Cartoon classics—help for pain

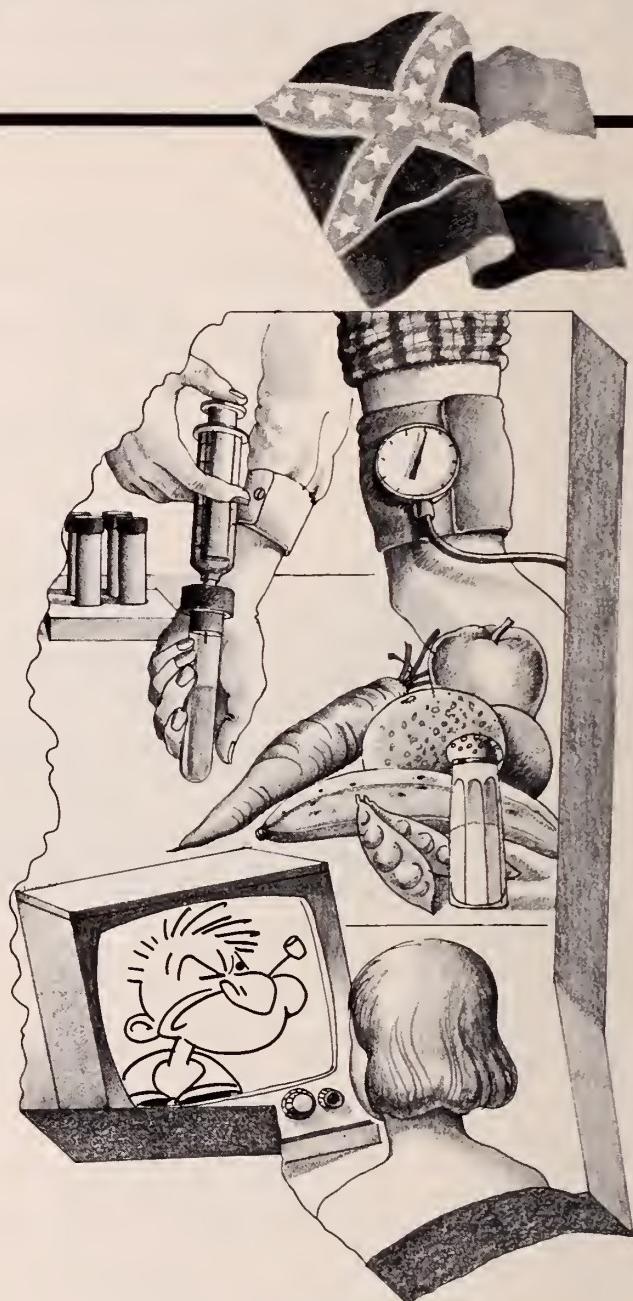
The hospitalized burned child, forced to cope with isolation, immobilization, extreme pain and disfigurement, manifests severe behavior problems during treatment. One of the most difficult management problems is with the child who must endure the excruciating pain involved in the open treatment of burns. The procedure, used for second-degree burns, involves exposure of the wounds, removal of burned skin and daily coverage with antibiotics. In order to avoid treatment, the child may scream, thrash about, cry and complain of pain—which generally worsens with time as nerve endings heal and sensation returns. Even experienced health-care workers have become faint while observing the suffering of these young patients.

Dr. Ronald S. Drabman and his colleagues in the Division of Psychology of the Department of Psychiatry and Human Behavior of the University of Mississippi Medical Center have tested a multicomponent behavioral approach for reducing pain behavior exhibited by severely burned children during the open treatment procedure.<sup>2</sup> The children, two young girls, were asked to choose a television cartoon program, either "Popeye" or "Bugs Bunny," and watch it closely during treatment. If there was a 25% or more reduction in pain behavior from the level at baseline sessions, the child was rewarded with a star placed on her chart. Both children exhibited less pain behavior during experimental sessions than during baseline sessions.

In keeping with ethical considerations and the appropriateness of the children's reaction to pain, the goal of the study was not to suppress or eliminate pain behavior completely. The researchers believe that their successful distraction-and-reward technique, the first experimental evaluation of behavior during open treatment, will point the way to much-needed clinical research in this area.

## 15-minute diagnosis of killer infection

Spontaneous bacterial peritonitis, a common and usually fatal infection among alcoholic cirrhotic patients, can now be



recognized in 15 minutes by means of a simple assay of ascitic fluid. Dr. James L. Achard and his University of Mississippi colleagues routinely screen cirrhotics for high lactic acid. This is more sensitive than conventional WBC counts and avoids many false positives. And, says Dr. Achard, most hospital labs are already equipped to do the test for one dollar.<sup>3</sup>

**References:** 1. Medical News. JAMA 248:2951, Dec 10, 1982 2. Kelley ML, et al. J Appl Behav Anal 17:147-158, Summer 1984 3. Medical World News, Nov 22, 1982, p. 15.



# TODAY: FOR THE PATIENT WITH MIXED DEPRESSION AND ANXIETY

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amitriptyline
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Convenient single h.s. dosing sufficient in some patients; helps patients with mixed depression and anxiety sleep through the night. Patients should be cautioned about the combined effects of Limbitrol with alcohol and other CNS depressants, and about activities requiring complete mental alertness such as operating machinery or driving a car.

In moderate depression and anxiety

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LIMBITROL 5-12.5 WRITE:

**Limbitrol<sup>®</sup>**

Each tablet contains 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)

(IV)

IN PLACE OF  
LIMBITROL 10-25 WRITE:

**Limbitrol DS<sup>®</sup>**

Each tablet contains 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt)

(IV)

Easier to remember... easier to prescribe

\*Feighner JP, et al: Psychopharmacology 61:217-225, Mar 22, 1979

Please see summary of product information on following page.

**LIMBITROL® Tranquilizer-Antidepressant**

Before prescribing, please consult complete product information, a summary of which follows:

**Indications:** Relief of moderate to severe depression associated with moderate to severe anxiety

**Contraindications:** Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use; then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

**Warnings:** Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients (arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).

**Usage in Pregnancy:** Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage, withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline, symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).

**Precautions:** Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated; sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude toxicity, oversedation, confusion or anticholinergic effects.

**Adverse Reactions:** Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and blurring. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs:

**Cardiovascular:** Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.

**Psychiatric:** Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

**Neurologic:** Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extropiomidol symptoms, syncope, changes in EEG patterns.

**Anticholinergic:** Disturbance of accommodation, paralytic ileus, urinary retention, dilation of urinary tract.

**Allergic:** Skin rash, urticaria, photosensitization, edema of face and tongue, pruritis.

**Hematologic:** Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

**Gastrointestinal:** Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.

**Endocrine:** Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female, elevation and lowering of blood sugar levels, and syndrome of inappropriate ADH (antidiuretic hormone) secretion.

**Other:** Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, periorificial swelling.

**Overdosage:** Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for management and treatment.

**Dosage:** Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single h.s. dose may suffice for some patients. Lower dosages are recommended for the elderly.

Limbitrol DS (double strength) Tablets, initial dosage of three or four tablets daily in divided doses, increased up to six tablets or decreased to two tablets daily as required. Limbitrol Tablets, initial dosage of three or four tablets daily in divided doses, for patients who do not tolerate higher doses.

**How Supplied:** Double strength (DS) Tablets, white, film-coated, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt), and Tablets, blue, film-coated, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 50.



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# DATELINE

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## Grassroots Support Needed for Tort Reform

Jackson, MS - Grassroots support is needed for the campaign to seek malpractice tort reform in the 1986 Mississippi Legislature. The program will include bills designed to limit non-economic and punitive damages, eliminate the collateral source rule, provide for periodic payments of damages in excess of \$250,000, restrict attorneys' contingency fees to a sliding scale, implement the law abolishing sovereign immunity, and reduce the statute of limitations.

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## Dr. Weems Heads Special Legislative Committee

Jackson, MS - Dr. Lamar Weems, delegate to AMA, has been named chairman of a special legislative study committee which will examine uncompensated medical care in Mississippi. The committee is composed of legislators and representatives from major health organizations. It will report to the 1986 Mississippi Legislature after completing its study of possible solutions to problems associated with care of the uninsured poor in the state.

---

## Alternative Delivery Systems Seminar

Jackson, MS - "Don't sign that contract until you attend." That's the advice on promotional material concerning the September 27 seminar on alternative delivery systems. The seminar, co-sponsored by MSMA and the Miss. Chapter, American Society of Internal Medicine, will be held in Jackson. Topics include an overview of HMOs, IPAs and PPOs; advice on contracting with them; and a report of the experience of one such system.

---

## Health Spending Has Slowest Increase

Washington, DC - 1984's increase in health care spending was the slowest increase in 20 years, reports the Dept. of Health and Human Services. A drop in the overall inflation rate and a drop in use of hospital inpatient services were attributed as factors. Secretary Margaret Heckler said the changes in utilization patterns were due to the Medicare prospective payment system and to private sector initiatives.

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## Infectious Disease Update in Hattiesburg

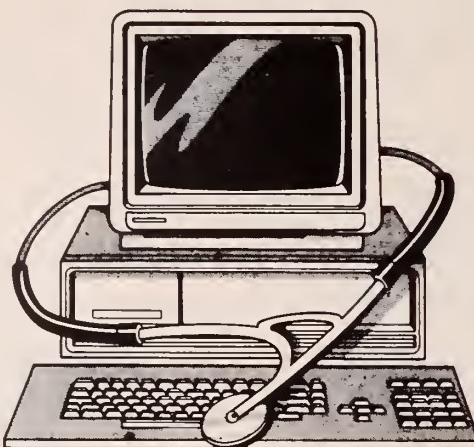
Hattiesburg, MS - "Update in Infectious Diseases" is the topic of a CME meeting November 7 in Hattiesburg. Co-sponsored by Forrest General Hospital and the Hattiesburg Clinic, the seminar will feature discussions on cost-effective use of parenteral antibiotics, new antiviral and antifungal therapy, therapy of pneumonias, sexually transmitted diseases, AIDS, and an update on vaccine.

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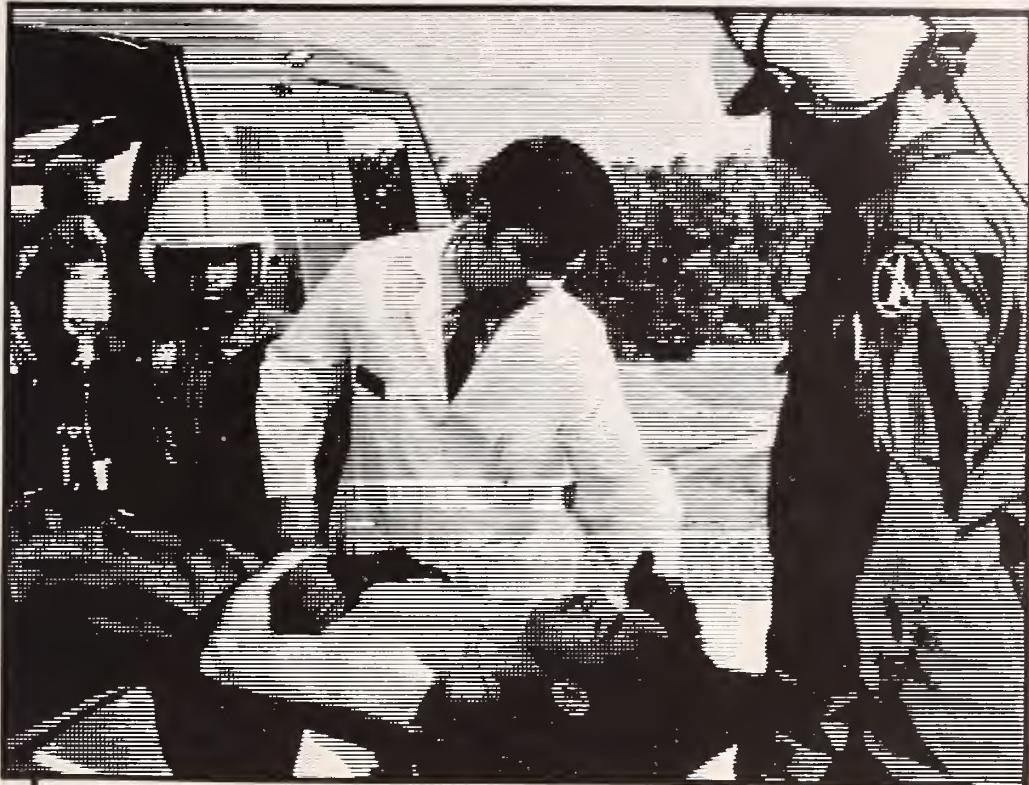
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Oral "Swallow" Tablets

30 mg    40 mg  
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"Swallow" Tablets

# SORBITRATE<sup>®</sup>

## (ISOSORBIDE DINITRATE)

Please consult full prescribing information before use. A summary follows:

**INDICATIONS AND USAGE:** SORBITRATE (isosorbide dinitrate) is indicated for the treatment and prevention of angina pectoris. All dosage forms of isosorbide dinitrate may be used prophylactically to decrease frequency and severity of anginal attacks and can be expected to decrease the need for sublingual nitroglycerin.

The sublingual and chewable forms of the drug are indicated for acute prophylaxis of angina pectoris when taken a few minutes before situations likely to provoke anginal attacks. Because of a slower onset of effect, the oral forms of isosorbide dinitrate are not indicated for acute prophylaxis.

**CONTRAINDICATIONS:** SORBITRATE is contraindicated in patients who have shown purported hypersensitivity or idiosyncrasy to it or other nitrates or nitrites. Epinephrine and related compounds are ineffectual in reversing the severe hypotensive events associated with overdose and are contraindicated in this situation.

**WARNINGS:** The benefits of SORBITRATE during the early days of an acute myocardial infarction have not been established. If one elects to use organic nitrates in early infarction, hemodynamic monitoring and frequent clinical assessment should be used because of the potential deleterious effects of hypotension.

**PRECAUTIONS: General:** Severe hypotensive response, particularly with upright posture, may occur with even small doses of SORBITRATE. The drug should therefore be used with caution in subjects who may have blood volume depletion from diuretic therapy or in subjects who have low systolic blood pressure (e.g., below 90 mmHg). Paradoxical bradycardia and increased angina pectoris may accompany nitrate-induced hypotension. Nitrate therapy may aggravate the angina caused by hypertrophic cardiomyopathy.

Marked symptomatic, orthostatic hypotension has been reported when calcium channel blockers and organic nitrates were used in combination. Dose adjustment of either class of agents may be necessary.

Tolerance to this drug and cross-tolerance to other nitrates and nitrites may occur. Tolerance to the vascular and antianginal effects of isosorbide dinitrate or nitroglycerin has been demonstrated in clinical trials, experience through occupational exposure, and in isolated tissue experiments in the laboratory. The importance of tolerance to the appropriate use of isosorbide dinitrate in the management of patients with angina pectoris has not been determined. However, one clinical trial using treadmill exercise tolerance (as an end point) found an 8-hour duration of action of oral isosorbide dinitrate following the first dose (after a 2-week placebo washout) and only a 2-hour duration of effect of the same dose after 1 week of repetitive dosing at conventional dosing intervals. On the other hand, several trials have been able to differentiate isosorbide dinitrate from placebo after 4 weeks of therapy and, in open trials, an effect seems detectable for as long as several months.

Tolerance clearly occurs in industrial workers continuously exposed to nitroglycerin. Moreover, physical dependence also occurs since chest pain, acute myocardial infarction, and even sudden death have occurred during temporary withdrawal of nitroglycerin from the workers. In clinical trials in angina patients, there are reports of anginal attacks being more easily provoked and of rebound in the hemodynamic effects soon after nitrate withdrawal. The relative importance of these observations to the routine, clinical use of isosorbide dinitrate is not known. However, it seems prudent to gradually withdraw patients from isosorbide dinitrate when the therapy is being terminated, rather than stopping the drug abruptly.

**Information for Patients:** Headache may occur during initial therapy with SORBITRATE. Headache is usually relieved by the use of standard headache remedies or by lowering the dose and tends to disappear after the first week or two of use.

**Drug Interactions:** Alcohol may enhance any marked sensitivity to the hypotensive effect of nitrates.

Iosorbide dinitrate acts directly on vascular smooth muscle; therefore, any other agent that depends on vascular smooth muscle as the final common path can be expected to have decreased or increased effect depending on the agent.

**Carcinogenesis, Mutagenesis, Impairment of Fertility:** No long-term studies in animals have been performed to evaluate the carcinogenic potential of this drug. A modified two-litter reproduction study in rats fed isosorbide dinitrate at 25 or 100 mg/kg/day did not reveal any effects on fertility or gestation or any remarkable gross pathology in any parent or offspring fed isosorbide dinitrate as compared with rats fed a basal-controlled diet.

**Pregnancy Category C:** Iosorbide dinitrate has been shown to cause a dose-related increase in embryo-toxicity (increase in mummified pups) in rabbits at oral doses 35 and 150 times the maximum recommended human daily dose. There are no adequate and well-controlled studies in pregnant women. SORBITRATE should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

**Nursing Mothers:** It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when SORBITRATE is administered to a nursing woman.

**Pediatric Use:** The safety and effectiveness of SORBITRATE in children has not been established.

**ADVERSE REACTIONS:** Adverse reactions, particularly headache and hypotension, are dose-related. In clinical trials at various doses, the following have been observed:

Headache is the most common (reported incidence varies widely, apparently being dose-related, with an average occurrence of about 25%) adverse reaction and may be severe and persistent. Cutaneous vasodilation with flushing may occur. Transient episodes of dizziness and weakness, as well as other signs of cerebral ischemia associated with postural hypotension, may occasionally develop (the incidence of reported symptomatic hypotension ranges from 2% to 36%). An occasional individual will exhibit marked sensitivity to the hypotensive effects of nitrates and severe responses (nausea, vomiting, weakness, restlessness, pallor, perspiration, and collapse) may occur even with the usual therapeutic dose. Drug rash and/or exfoliative dermatitis may occasionally occur. Nausea and vomiting appear to be uncommon. Case reports of clinically significant methemoglobinemia are rare at conventional doses of organic nitrates. The formation of methemoglobin is dose-related and, in the case of genetic abnormalities of hemoglobin that favor methemoglobin formation, even conventional doses of organic nitrate could produce harmful concentrations of methemoglobin.

**DOSAGE AND ADMINISTRATION:** For the treatment of angina pectoris, the usual starting dose for sublingual SORBITRATE is 2.5 to 5 mg, for chewable tablets, 5 mg; for oral (swallowed) tablets, 5 to 20 mg, and for controlled-release forms, 40 mg.

SORBITRATE should be titrated upward until angina is relieved or side effects limit the dose. In ambulatory patients, the magnitude of the incremental dose increase should be guided by measurements of standing blood pressure.

The initial dosage of sublingual or chewable SORBITRATE for prophylactic therapy in angina pectoris patients is generally 5 or 10 mg every 2 to 3 hours. Adequate controlled clinical studies demonstrating the effectiveness of chronic maintenance therapy with these dosage forms have not been reported.

SORBITRATE in oral doses of 10 to 40 mg given every 6 hours or in oral controlled-release doses of 40 to 80 mg given every 8 to 12 hours is generally recommended. The extent to which development of tolerance should modify the dosage program has not been defined. The oral controlled-release forms of isosorbide dinitrate should not be chewed.

**DOSAGE FORMS AVAILABLE:** Sublingual Tablets (2.5, 5, 10 mg), Chewable Tablets (5, 10 mg), Oral Tablets (5, 10, 20, 30, 40 mg); Sustained Action Tablets (40 mg).



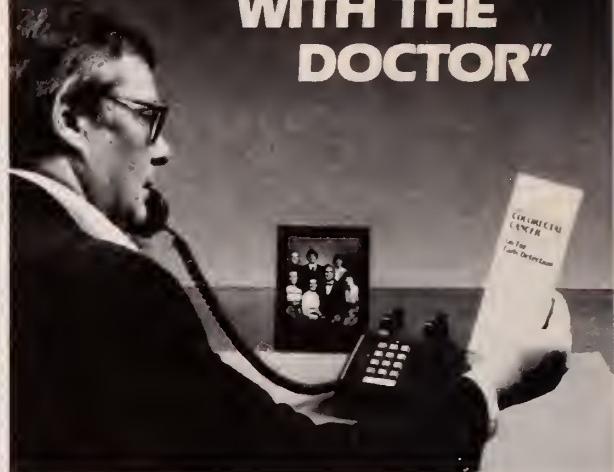
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For asymptomatic persons the Society recommends annual digital rectal examination at age 40 and over; at age 50 and over, an annual stool blood test, as well as sigmoidoscopy every three to five years, following two initial annual negative sigmoidoscopies.

We're here to help. You can reach us at your local American Cancer Society office or write to our Professional Education Department at National Headquarters, 90 Park Avenue, New York, N.Y. 10016. Ask about the Society's Colorectal Check program of professional and public education for the early detection of colorectal cancer.



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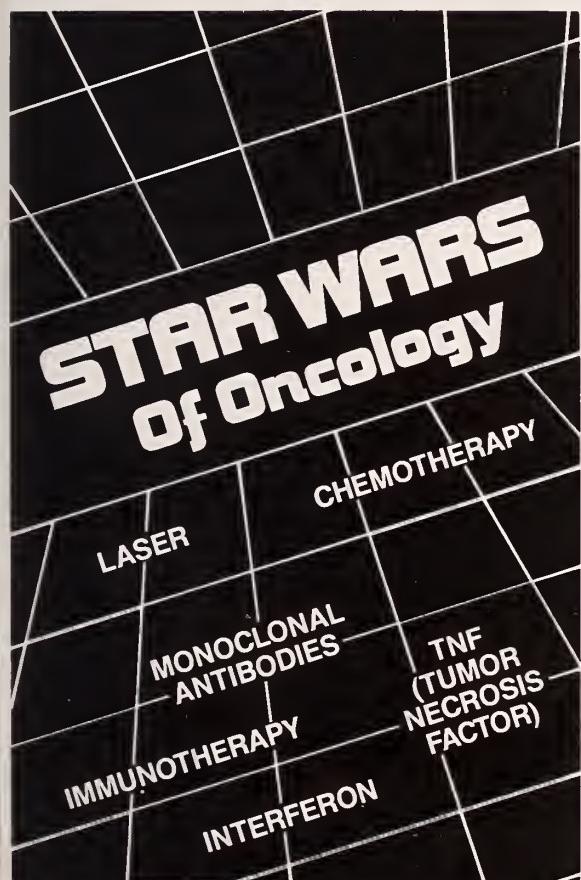
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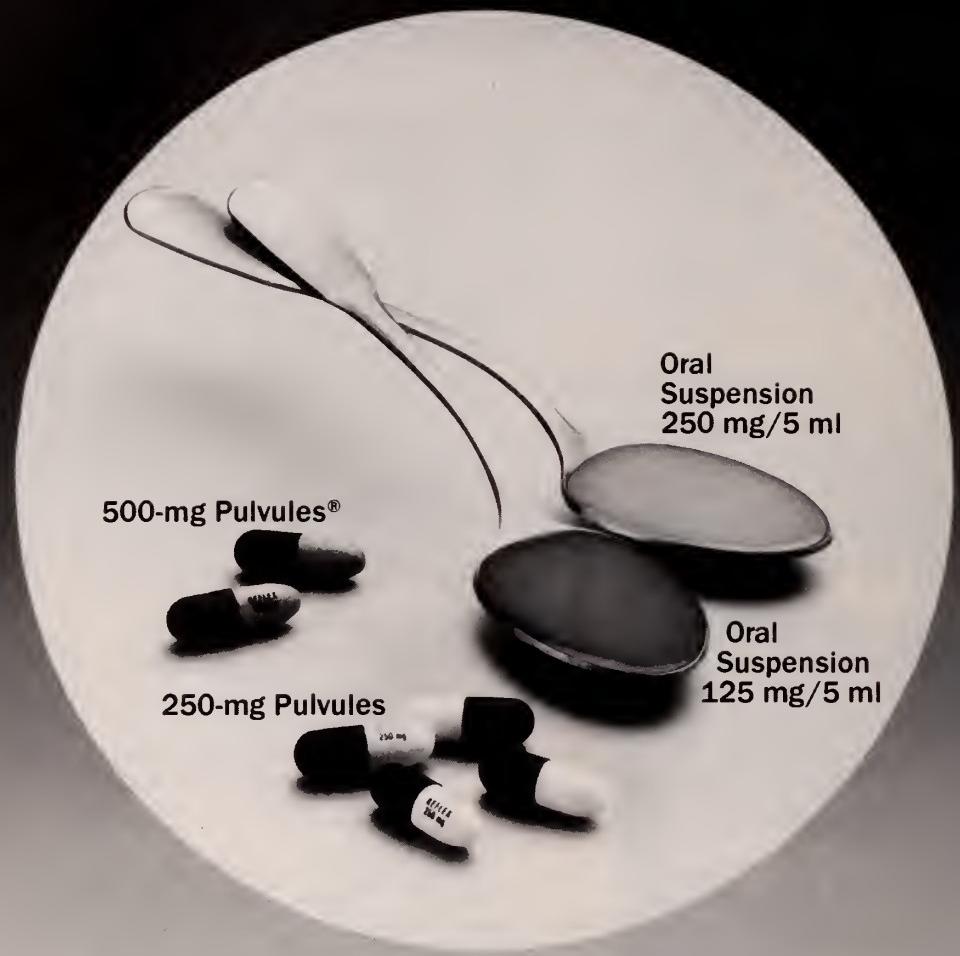
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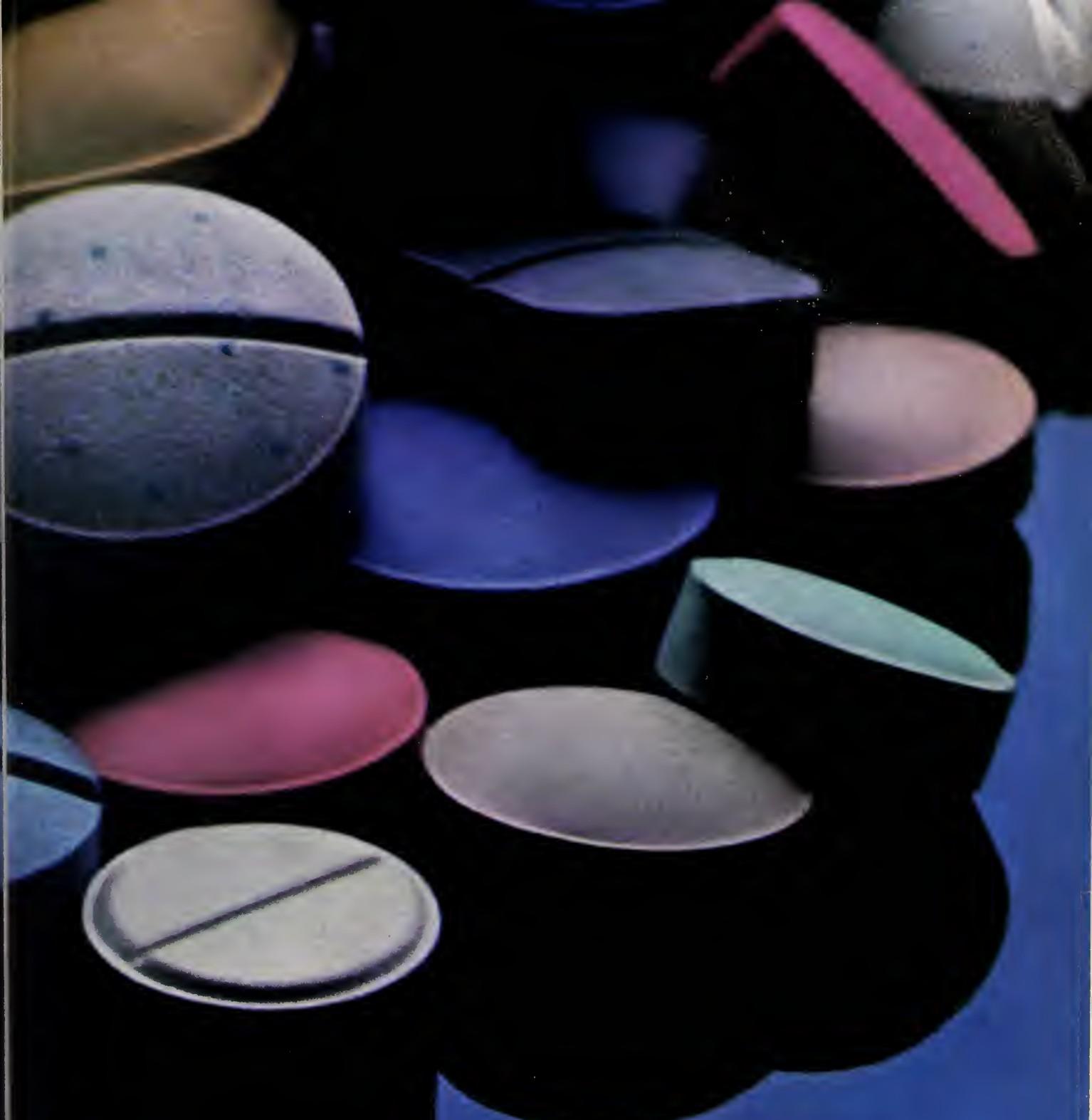
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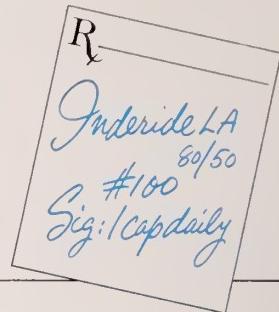
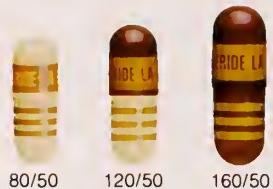


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Hydrochlorothiazide	50 mg
No 457—Each Inderide® LA 120/50 Capsule contains	120 mg
Propranolol hydrochloride (INDERAL® LA)	120 mg
Hydrochlorothiazide	50 mg
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Propranolol hydrochloride (INDERAL® LA)	160 mg
Hydrochlorothiazide	50 mg

INDERIDE LA is indicated in the management of hypertension.

This fixed-combination drug is not indicated for initial therapy of hypertension. If the fixed combination represents the dose titrated to the individual patient's needs, therapy with the fixed combination may be more convenient than with the separate components.

**CONTRAINDICATIONS**

**Propranolol hydrochloride (INDERAL®):**

Propranolol is contraindicated in: 1) cardiogenic shock, 2) sinus bradycardia and greater than first degree block, 3) bronchial asthma, 4) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythmia treatable with propranolol.

**Hydrochlorothiazide:**

Hydrochlorothiazide is contraindicated in patients with anuria or hypersensitivity to this or other sulfonamide-derived drugs.

**WARNINGS**

**Propranolol hydrochloride (INDERAL®):**

CARDIAC FAILURE Sympathetic stimulation may be a vital component supporting circulatory function in patients with congestive heart failure, and its inhibition by beta blockade may precipitate more severe failure. Although beta blockers should be avoided in overt congestive heart failure, if necessary, they can be used with close follow-up in patients with a history of failure who are well compensated, and are receiving digitalis and diuretics. Beta-adrenergic blocking agents do not abolish the inotropic action of digitalis on heart muscle.

IN PATIENTS WITHOUT A HISTORY OF HEART FAILURE, continued use of beta blockers can, in some cases, lead to cardiac failure. Therefore, at the first sign or symptom of heart failure, the patient should be digitalized and/or treated with diuretics, and the response observed closely, or propranolol should be discontinued (gradually, if possible).

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial infarction, following abrupt discontinuance of propranolol therapy. Therefore, when discontinuance of propranolol is planned, the dosage should be gradually reduced and the patient carefully monitored. In addition, when propranolol is prescribed for angina pectoris, the patients should be cautioned against interruption or cessation of therapy without the physician's advice. If propranolol therapy is interrupted and exacerbation of angina occurs, it usually is advisable to reinstitute propranolol therapy and take other measures appropriate for the management of unstable angina pectoris. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease who are given propranolol for other indications.

THYROTOXICOSIS Beta blockade may mask certain clinical signs of hyperthyroidism. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. Propranolol does not distort thyroid function tests.

IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case this resulted after an initial dose of 5 mg propranolol.

MAJOR SURGERY The necessity or desirability of withdrawal of beta-blocking therapy prior to major surgery is controversial. It should be noted, however, that the impaired ability of the heart to respond to reflex adrenergic stimuli may augment the risks of general anesthesia and surgical procedures.

**Nonallergic Bronchospasm (eg, chronic bronchitis, emphysema)**—PATIENTS WITH BRONCHOSPASTIC DISEASES SHOULD, IN GENERAL, NOT RECEIVE BETA BLOCKERS. Inderal should be administered with caution since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of beta receptors.

DIABETES AND HYPOGLYCEMIA Beta-adrenergic blockade may prevent the appearance of certain premonitory signs and symptoms (pulse rate and pressure changes) of acute hypoglycemia in labile insulin-dependent diabetes. In these patients, it may be more difficult to adjust the dosage of insulin. Hypoglycemic attacks may be accompanied by a precipitous elevation of blood pressure.

**Hydrochlorothiazide:**

Thiazides should be used with caution in severe renal disease. In patients with renal disease thiazides may precipitate azotemia. In patients with impaired renal function, cumulative effects of the drug may develop.

Thiazides should also be used with caution in patients with impaired hepatic function or progressive liver disease, since minor alterations of fluid and electrolyte balance may precipitate hepatic coma.

Thiazides may add to or potentiate the action of other antihypertensive drugs. Potentiation occurs with ganglionic or peripheral adrenergic-blocking drugs.

Sensitivity reactions may occur in patients with a history of allergy or bronchial asthma.

The possibility of exacerbation or activation of systemic lupus erythematosus has been reported.

**PRECAUTIONS**

**Propranolol hydrochloride (INDERAL®):**

GENERAL Propranolol should be used with caution in patients with impaired hepatic or renal function. Propranolol is not indicated for the treatment of hypertensive emergencies.

Beta-adrenoceptor blockade can cause reduction of intraocular pressure. Patients should be told that propranolol may interfere with the glaucoma screening test. Withdrawal may lead to a return of increased intraocular pressure.

CLINICAL LABORATORY TESTS Elevated blood urea levels in patients with severe heart disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase.

DRUG INTERACTIONS Patients receiving catecholamine-depleting drugs such as reserpine should be closely observed if propranolol is administered. The added catecholamine-blocking action may produce an excessive reduction of resting sympathetic nervous activity, which may result in hypotension, marked bradycardia, vertigo, syncopal attacks, or orthostatic hypotension.

**CARCINOGENESIS, MUTAGENESIS, IMPAIRMENT OF FERTILITY** Long-term studies in animals have been conducted to evaluate toxic effects and carcinogenic potential. In 18-month studies, in both rats and mice, employing doses up to 150 mg/kg/day, there was no evidence of significant drug-induced toxicity. There were no drug-related tumorigenic effects at any of the dosage levels. Reproductive studies in animals did not show any impairment of fertility that was attributable to the drug.

**PREGNANCY** Pregnancy Category C. Propranolol has been shown to be embryotoxic in animal studies at doses about 10 times greater than the maximal recommended human dose. There are no adequate and well-controlled studies in pregnant women. Propranolol should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

**NURSING MOTHERS** Propranolol is excreted in human milk. Caution should be exercised when propranolol is administered to a nursing mother.

**PEDIATRIC USE** Safety and effectiveness in children have not been established.

**Hydrochlorothiazide:**

GENERAL Periodic determination of serum electrolytes to detect possible electrolyte imbalance should be performed at appropriate intervals.

All patients receiving thiazide therapy should be observed for clinical signs of fluid or electrolyte imbalance, namely, hyponatremia, hypochloremic alkalosis, and hypokalemia. Serum and urine electrolyte determinations are particularly important when the patient is vomiting excessively or receiving parenteral fluids. Medication such as digitalis may also influence serum electrolytes. Warning signs irrespective of cause: Dryness of mouth; thirst; weakness; lethargy; drowsiness; restlessness; muscle pains or cramps; muscular fatigue; hypotension; oliguria; tachycardia; and gastrointestinal disturbances such as nausea and vomiting.

Hypokalemia may develop, especially with brisk diuresis, when severe cirrhosis is present or during concomitant use of corticosteroids or ACTH.

Interference with adequate oral electrolyte intake will also contribute to hypokalemia. Hypokalemia can sensitize or exaggerate the response of the heart to the toxic effect of digitalis (e.g., increased ventricular irritability). Hypokalemia may be avoided or treated by use of potassium supplements, such as foods with a high potassium content.

Any chloride deficit is generally mild and usually does not require specific treatment, except under extraordinary circumstances (as in liver or renal disease). Dilutional hyponatremia may occur in edematous patients in hot weather; appropriate therapy is water restriction, rather than administration of salt, except in rare instances when the hyponatremia is life-threatening. In actual salt depletion, appropriate replacement is the therapy of choice.

Hyperuricemia may occur or frank gout may be precipitated in certain patients receiving thiazide therapy.

Insulin requirements in diabetic patients may be increased, decreased, or unchanged.

Diabetes mellitus which has been latent may become manifest during thiazide administration.

If progressive renal impairment becomes evident, consider withholding or discontinuing diuretic therapy.

Thiazides may decrease serum PBI levels without signs of thyroid disturbance.

Calcium excretion is decreased by thiazides. Pathologic changes in the parathyroid gland with hypercalcemia and hypophosphatemia have been observed in a few patients on prolonged thiazide therapy. The common complications of hyperparathyroidism, such as renal lithiasis, bone resorption, and peptic ulceration have not been seen. Thiazides should be discontinued before carrying out tests for parathyroid function.

**DRUG INTERACTIONS** Thiazide drugs may increase the responsiveness to tubocurarine.

The antihypertensive effects of thiazides may be enhanced in the postsympathectomy patient. Thiazides may decrease arterial responsiveness to norepinephrine. This diminution is not sufficient to preclude effectiveness of the pressor agent for therapeutic use.

**PREGNANCY** Pregnancy Category C. Thiazides cross the placental barrier and appear in cord blood. The use of thiazides in pregnancy requires that the anticipated benefit be weighed against possible hazards to the fetus. These hazards include fetal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions which have occurred in the adult.

**NURSING MOTHERS** Thiazides appear in human milk. If use of the drug is deemed essential, the patient should stop nursing.

**PEDIATRIC USE** Safety and effectiveness in children have not been established.

**ADVERSE REACTIONS**

**Propranolol hydrochloride (INDERAL®):**

Most adverse effects have been mild and transient and have rarely required the withdrawal of therapy.

**Cardiovascular** Bradycardia, congestive heart failure, intensification of AV block, hypertension, paresthesia of hands, thrombocytopenic purpura, arterial insufficiency, usually of the Raynaud type.

**Central Nervous System** Lightheadedness, mental depression manifested by insomnia, lassitude, weakness, fatigue; reversible mental depression progressing to catatonia; visual disturbances, hallucinations, an acute reversible syndrome characterized by disorientation for time and place, short-term memory loss, emotional lability, slightly clouded sensorium, and decreased performance on neuropsychometrics.

**Gastrointestinal** Nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic colitis.

**Allergic** Pharyngitis and agranulocytosis; erythematous rash, fever combined with aching and sore throat; laryngospasm and respiratory distress.

**Respiratory** Bronchospasm.

**Hematologic** Agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura.

**Auto-Immune** In extremely rare instances, systemic lupus erythematosus has been reported.

**Miscellaneous** Alopecia, LE-like reactions, psoriasis-like rashes; dry eyes, male impotence, and Peyronie's disease have been reported rarely. Oculomucocutaneous reactions involving the skin, serous membranes, and conjunctiva reported for a beta-blocker (propranolol) have not been associated with propranolol.

**Hydrochlorothiazide:**

**Gastrointestinal** Anorexia, gastric irritation, nausea, vomiting, cramping, diarrhea, constipation, jaundice (intrahepatic cholestatic jaundice), pancreatitis, sialadenitis.

**Central Nervous System** Dizziness, vertigo, paresthesias, headache, xanthopsia.

**Hematologic** Leukopenia, agranulocytosis, thrombocytopenia, aplastic anemia.

**Cardiovascular** Orthostatic hypotension (may be aggravated by alcohol, barbiturates, or narcotics).

**Hypersensitivity** Purpura, photosensitivity, rash, urticaria, necrotizing angitis (vasculitis, cutaneous vasculitis); fever, respiratory distress, including pneumonitis, anaphylactic reactions.

**Other** Hyperglycemia, glycosuria, hyperuricemia, muscle spasm, weakness, restlessness, transient blurred vision.

Whenever adverse reactions are moderate or severe, thiazide dosage should be reduced or therapy withdrawn.

5112/985

ORIGINAL PAPERS

# Ten Year Experience With Total Hip Arthroplasty

GEORGE D. PURVIS, M.D.

Jackson, Mississippi

IN 1973, at the annual meeting of the Mississippi State Medical Association, I presented a paper entitled "Total Hip Arthroplasty — Indications, Early Experiences." That was a cursory report of 31 patients with a follow-up of six to fifteen months. The current report is from a pool of 528 hips on which four different teams of seven orthopaedists in a private practice setting have carried out total hip arthroplasties between 1972 and 1983. Two of the teams have performed standard Charnley type procedures<sup>1</sup> (see Figure 1) while the other two have used Müller<sup>2</sup> (see Figure 2) or Computer Associated Design (CAD) Components<sup>3</sup> (see Figure 3).

This report is a study of hips replaced between 1972 and 1978. During that time, we performed 267 total hip arthroplasties. The average period of follow-up is 5.9 years with a range of six months to eleven years. Fourteen have been followed more than ten years 48 more than eight years, 159 more than four years and only 18 less than one year. Of the 267 hips, 26 were lost, 4 died, and thus 239 were available for analysis (see Table 1).

Our protocol for these procedures calls for many specific methods of management. The operations are performed in laminar flow, or so-called "clean air rooms." Hoods with vacuum are used for the operative personnel. Intraoperative administration of a broad spectrum antibiotic such as Cephalosporin is

given. Antibiotic irrigant is used repeatedly in the incision during the procedure. To attempt to combat phlebothrombosis, T.E.D. stockings are used on most patients for one month postoperatively, the foot of the bed is elevated 4" for the first four days, passive and active leg and ankle exercises are begun immediately following return from the recovery room and aspirin is given orally or per rectum beginning twelve hours postoperative. An abduction pillow is used between the legs for the first four to six days to limit muscle spasm and stress on the transferred trochanter. Originally, standing and ambulation was begun at four to six days postoperatively but now that period has been shortened to two days. For the first two months after surgery, crutches or a walker are used for ambulation with touch down of the affected extremity and progressive weight bearing. A cane in the opposite hand is used for walking for the next two months. Ordinarily, the patient is able to walk without external support at four months after surgery. The usual period of hospitalization for this procedure is 14 to 23 days.

Thirty-five bilateral total hip procedures were performed in this 267 hip series, usually with an interval of six months to a number of years. However, four patients had bilateral procedures during the same hospitalization.

There are 161 females and 106 males; 146 are on the right hip and 121 on the left. All of these procedures were performed at two hospitals, 127 at one and 140 at the other. There is no difference in the

Presented at the 115th Annual Session, Mississippi State Medical Association, Biloxi, Mississippi, May 1983.  
Dr. Purvis is engaged in the private practice of orthopedic surgery in Jackson, MS.

complication rate for the procedures performed at the two hospitals.

The primary indication for the total hip procedure in this series has been disabling pain. Most painful hips were the result of hypertrophic arthritis, rheumatoid arthritis, trauma, and other developmental conditions. Less frequent causes of such disabling pain are psoriatic arthritis and luetic involvement.

We found that of the 267 patients (see Table 2), 121 of them had hypertrophic arthritis, 86 had avascular necrosis, 27 rheumatoid arthritis, 25 were developmental, and 8 were the result of miscellaneous other lesser causes.

Seventy-one percent of the 86 hips with avascular necrosis were caused by trauma. Of those hips with avascular necrosis, trauma was responsible for the changes in 38 cases, the result of fractures of the neck and femur while 23 were the result of fractures of the acetabulum and/or dislocations of the hip.

Known alcoholism produced aseptic necrosis of the femoral heads in 16 patients. Steroid induced aseptic necrosis of the femoral heads was also encountered in this study as a complication of treatment for rheumatoid arthritis, lupus erythematosus, severe pulmonary disease and renal dialysis.

Study of complications (see Table 3) reveal that for the Müller type reconstructions there was an unacceptable incidence of 14 broken femoral stems which had to be revised, an incidence of 23%. That prosthesis is no longer used because of its structural weakness. Twenty-three revisions (38%) of the Müller procedures were required. The trochanter was not routinely osteotomized in the Müller cases but in those in which it was done, there were four broken wires with two displaced trochanters and two trochanteric nonunions. One subluxation occurred. There were five pulmonary emboli, an incidence of 8.2%, and three infections (4.9%). There were two deaths, 3.3%, during the period of hospitalization, one from a pulmonary embolus and the other as a result of infection. Two patients had to have the components removed because of infection.

There is a small number of CAD cases. Only 32 are reported in this group of patients because it was a newer component and had been used for a short period of time prior to 1978. A complication of significance for this component is calcification about the greater trochanter in four patients, 6.7%. Calcar resorption is present in a total of six cases in the CAD series, 18.8%. There was one phlebothrombosis, 1.6%, and one infection, 1.6%. CAD prosthesis was used to revise 22 failed Müller procedures. Of those, eleven have been converted to a "good" classification, seven to "fair," and four are failures.

Complications of significance for Charnley type reconstructions are more often associated with wire breakage or trochanter difficulties. There are 38 instances of wire breakage, (21.85%), but only twelve of those have produced instability or symptoms, an incidence of 6.9%. There are 13 cases in which there was some displacement of the greater trochanter and there were three nonunions of the trochanter. Of

TABLE I  
FOLLOW-UP 267 HIPS

10 Years or more .....	14
8 Years or more .....	48
4 Years or more .....	159
Less than 1 year .....	18
	239
Lost to follow up .....	24
Lost due to death .....	4
	267

TABLE II  
DIAGNOSES

Hypertrophic arthritis .....	121
Avascular necrosis .....	86
Rheumatoid arthritis .....	27
Developmental .....	25
Miscellaneous .....	8
	267

TABLE III  
COMPLICATIONS

	Müller		CAD		Charnley		Total
	#	%	#	%	#	%	
Broken stem	14	23	0	0	0	0	14
Loose stem	3	4.9	3	9.4	1	0.5	7
Loose cup	4	6.6	1	3.1	2	1.1	7
Malpositioned cup	0	0	0	0	4	2.3	4
Malpositioned stem	0	0	0	0	1	0.5	1
Broken wire	4	6.6	2	6.3	38	21.8	44
Displaced trochanter	2	3.3	1	3.1	13	7.5	16
Nonunion	2	3.3	0	0	3	1.7	5
Trochanter calcification	1	1.6	3	12.5	7	4	11
Dislocation	0	0	0	0	5	2.9	5
Subluxation	1	1.6	0	0	7	4	8
Infection	3	4.9	1	3.1	3	1.7	7
Death	2	1.1	1	3.1	2	1.1	5



Figure 1. Charnley type total hip arthroplasty 9 years post operative.



Figure 2. Müller type total hip arthroplasty 3 years post operative.



Figure 3. CAD type total hip arthroplasty 6 years post operative.

those, five dislocated and seven subluxated. Six revisions were necessary. There were ten diagnosed phlebothromboses (5.7%), and three infections (1.7%). One required removal of the components. These statistics are similar to those reported in larger total hip series.<sup>5, 6</sup>

Revision of failed hip reconstruction has been used in this series. Cases of fused hips, worn cup arthroplasties and failed femoral head components are included.

In the past, other methods of handling the painful hip have been tried such as metal on metal total hips,<sup>7</sup> and surface replacement arthroplasties<sup>8</sup> but these have had high complication rates in the experience of many. Bipolar arthroplasty without methyl methacrylate fixation<sup>4</sup> is a method which offers promise, especially in the younger patient with avascular necrosis. Research on enhanced fixation with ceramics<sup>9</sup> or rough finish metal on components in order to promote ingrowth of bone into the implants is in progress. This is a dynamic, changing field.

The last sentence in my presentation regarding total hip arthroplasty in 1972, was "This is a salvage procedure to be used for severe, painful disability." That statement is still true.

For the 239 cases analyzed, there was an overall 11% failure rate but for the Charnley series that was 4.6%.

In conclusion, it appears that hip reconstruction, although expensive and with risks, seems justified because of pain relief, improved ambulation, and the better quality of life that it offers.

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# Recent Advancements in the Treatment of Prostate Cancer

CRAIG A. DAWKINS, M.D. and E. DAVID CRAWFORD, M.D.

Jackson, Mississippi

CANCER OF THE PROSTATE is one of the most common forms of cancer in men over 50 years of age.<sup>1</sup> In the United States alone, it is anticipated that there will be 76,000 new cases of the disease diagnosed annually with 1,100 new cases occurring in Mississippi in 1984.<sup>2</sup>

## Incidence

The incidence of prostate cancer increases with age but is uncommon under the age of 40. It is comparatively rare in the Far East and common in the Scandinavian countries.<sup>2</sup> The occurrence rate is higher among blacks<sup>3</sup> with one out of ten black males anticipated to be diagnosed as having prostate cancer in contrast to one out of twenty white males.

A clinical dilemma exists in that many patients experience substantial morbidity from prostate cancer every year yet many more have the disease without knowing it and die from other causes. Several reports have documented an increasing incidence at autopsy of occult or "latent adenocarcinoma of the prostate" with increasing age.<sup>4-7</sup> Indeed, Scott and his associates issue a warning to the medical profession that 70% of tumors of the prostate in their series of over 5000 autopsies were not suspected during lifetime even though they were large enough to be detected by physical examination.<sup>7</sup>

Cancer of the prostate is considered by many physicians to be a very slow growing tumor which seldom results in patient death. Yet, it is a formidable cause of cancer related deaths and it is projected nationally that 25,000 males including 350 in Mississippi will die of metastatic prostate cancer this year.<sup>2</sup>

The majority of prostate cancers originate in the posterior zone of the prostate. McNeal documented this in a series of 125 cases analyzing the initial location of microscopic adenocarcinoma of the prostate in which 97% were located in the posterior lobe

or peripheral zone.<sup>8</sup> The most reliable, easily performed diagnostic screening method is the digital rectal examination. Digital rectal palpation of the prostate gland should be performed annually on all males over 40 (American Cancer Society recommendation). In one Armed Forces study where digital rectal exams were performed every six months, 55% of the prostate cancers were diagnosed at a curative stage. In the civilian population early stage tumors confined to the prostate gland are detected in only 10-15% of cases with the remainder being diagnosed at advanced stage.

## Etiology and Staging

The etiology of prostate cancer is not clear although hormonal influences have been implicated. Efforts to determine viral, genetic, immunocompetence and environmental factors have been studied extensively and remain controversial.

When the clinical suspicion of prostate cancer exists, a biopsy is indicated. The differential diagnosis of a suspicious prostate nodule includes prostate cancer, nodular prostatic hyperplasia, granulomatous prostatitis, tuberculosis, sarcomas, metastatic tumors, prostatic calculi and phlebolith of the rectal wall. The diagnosis is made by transperineal or transrectal needle biopsy of the prostate. This is a simple, safe and reliable procedure, which can be performed on an outpatient basis. More recently, "skinny" or thin needle aspiration of the suspicious lesion has been employed with increasing success.<sup>9</sup> Needle tract tumor seeding is extremely rare with either method.

## Staging

Table I and Figures 1-4 outline the current staging system for prostate cancer. Adenocarcinoma is the most common histologic type. The Gleason systems of histologic grading correlates the pathologic grade at the time of diagnosis with prognosis and mortality rates.<sup>10</sup>

Prostate cancers usually spread by three routes:

From the departments of surgery, divisions of urology, University Medical Center and Veterans Administration Medical Center, Jackson, MS.

TABLE I  
PATHOLOGICAL STAGING

<i>Stages</i>	<i>Characterization</i>
A	Incidental finding by the pathologist in clinically unsuspected presentation (Figure 1).
	A <sub>1</sub> Low grade lesion or one constituting less than 5% of resected specimen
	A <sub>2</sub> High grade lesion or one constituting > 5% of resected specimen
B	Clinically palpable but confined to prostate
	B <sub>1</sub> Discrete nodule in one lobe < 2.0 cm in diameter. (Figure 2)
	B <sub>2</sub> Nodule > 2 cm confined to one lobe.
C	Bilobar nodule confined to the prostate
	Extension beyond the prostate to seminal vesicles or contiguous structures (Figure 3)
	D Metastatic disease. (Figure 4)
D	D <sub>1</sub> Regional lymph node metastasis(es)
	D <sub>2</sub> Distant metastasis(es)

local extension, lymphogenous and hematogenous dissemination. With this biological behavior in mind, the staging work-up should evaluate the more common routes of metastasis to the lymph nodes, bone, liver and lung. Several studies have noted that lymphatic involvement more commonly occurs with large tumor volume and/or anaplastic lesions<sup>7, 10</sup> and involves the obturator, external, internal, lateral sacral and common iliac node chains. Metastasis to bone is the most frequent form of hematogenous spread. The more common sites of bony involvement correspond to venous drainage routes of the prostate and include the pelvis, lumbar and thoracic spine, femurs and ribs. To date there is no way to accurately predict the predilection between lymphogenous or hematogenous metastases. Visceral metastases generally occur in the lung, liver and adrenal glands.

The radiologic workup for prostate cancer includes a chest x-ray, bone survey, intravenous pyelogram, and a bone scan. We have recently found CT scan of the pelvis and abdomen helpful in identifying lymphatic disease and if positive following this parameter for response to treatment. Trans-abdominal, perineal and transrectal ultrasonographic scanning of the prostate are in a state of evolution.<sup>11</sup> Recent reviews suggest that rectal ultrasonography is better than transabdominal ultrasound in evaluation of the prostate and that both appear to be better than the CT scan of the pelvis.<sup>12</sup> Even though still evolving, it appears that rectal ultrasonography will play some role as an aid in diagnosis and staging of early stages of prostate cancer. The value of lymphangiography remains uncertain because of a 20-40% false negative rate.<sup>13, 14</sup>

Huggins observed an elevated serum acid phosphatase in a patient with prostate cancer in 1941, thus reporting the first useful biological tumor marker.<sup>15</sup> The acid phosphatases are omnipresent, being found in the serum, platelets, erythrocytes, leukocytes, spleen, liver, kidney, osteoclasts of bone and in the prostate.<sup>16</sup> The enzyme is generally measured by an enzymatic assay. Radioimmunoassay of acid phosphatase is more sensitive but has more false positive analyses. Newer assay techniques have defined five acid phosphatase isoenzymes with the isoenzyme 2 being more specific for the prostate.<sup>17</sup>

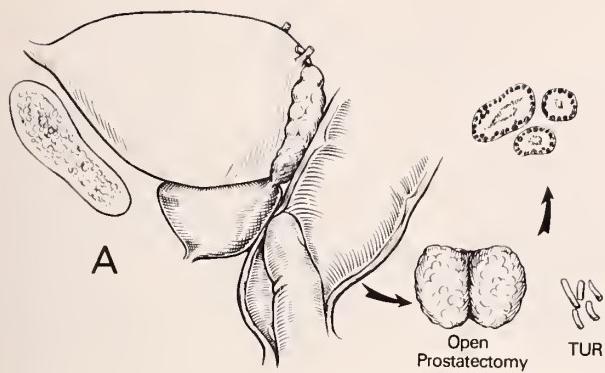
Presently an elevated acid phosphatase on more than one occasion in a patient with prostate cancer is highly suggestive of disease extension beyond the prostate capsule. The tumor marker remains elevated when the patient is untreated and diminishes when the patient responds to a treatment regimen.

The differential diagnosis in patients with an elevated acid phosphatase and a normal prostatic examination includes: multiple myeloma, Paget's disease, Gaucher's disease, osteogenic sarcoma, thrombocytopenia, nonprostatic malignancies with bony metastases, hyperparathyroidism, osteoporosis and hematological malignancies. In addition, spurious elevation of the acid phosphatase may occur with an over zealous rectal examination or prostatic massage. It should be emphasized that acid phosphatase is not a screening test for adenocarcinoma of the prostate as it may be negative in up to 85-90% of patients with localized disease.

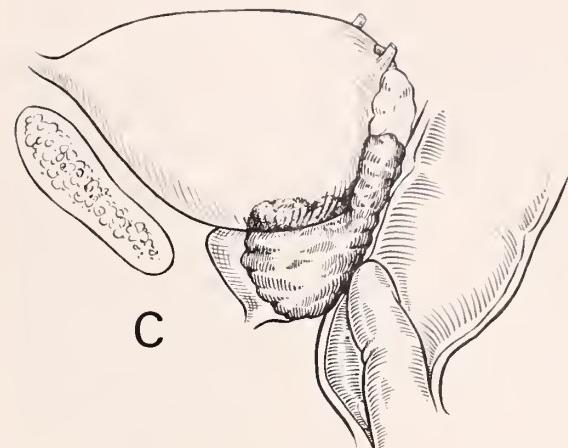
The alkaline phosphatases are ubiquitous enzymes found in bone, liver, intestinal mucosa and developing placenta. There are four isoenzymes described being found in bone, liver, intestine and tumor.<sup>18</sup> In a normal growing child the bone fraction is elevated while in the normal adult the majority of alkaline phosphatase activity is from the liver and intestine. Consequently, a high pretreatment alkaline phosphatase level including bone isoenzyme fraction and total alkaline phosphatase portends a poor prognosis from increased tumor burden.<sup>18</sup>

Carcinoembryonic antigen (CEA), a cancer-specific antigen originally described in adenocarcinoma of the colon has been described to be elevated in 80% of the patients with active prostate cancer. The antigen is not specific enough to be diagnostic but can be used to evaluate the response to therapy.<sup>19</sup>

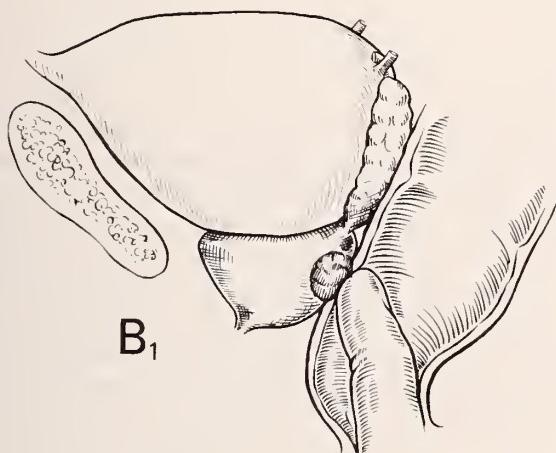
Complement C<sub>3</sub> and C<sub>4</sub> have been found to be



*Figure 1. Incidental finding by the pathologist in clinical unsuspected presentation (Stage A).*



*Figure 3. Extension beyond the prostate to seminal vesicles or contiguous structures (Stage C).*



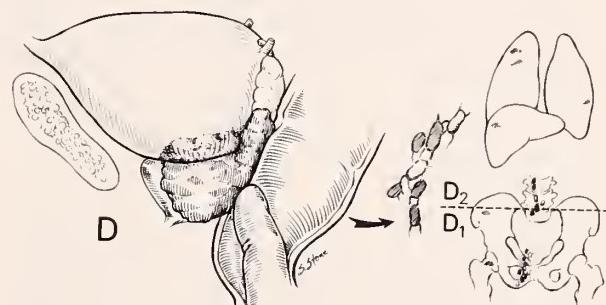
*Figure 2. Discrete nodule in one lobe < 2.0 cm. in diameter (Stage B<sub>1</sub>).*

elevated in prostatic secretion of men with carcinoma of the prostate. The problem remains that few patients with Stage A disease do not have elevated complement levels in the prostatic fluid.<sup>20</sup>

#### Treatment

##### Localized Disease

There is a great deal of controversy regarding the treatment for all stages of prostate cancer. Complete surgical extirpation of the malignant gland remains the mainstay of treatment for localized lesions A<sub>2</sub>, B<sub>1</sub>, B<sub>2</sub>. The preferred surgical procedure is a radical retropubic prostatectomy following a limited pelvic



*Figure 4. Metastatic disease (Stage D).*

lymphadenectomy. The advantage of this approach is the ability to perform a staging lymphadenectomy followed by a radical prostatectomy if the lymph nodes are negative. The radical perineal prostatectomy has the advantages of a more direct vesicourethral anastomosis and minimal blood loss. The disadvantage of the perineal approach is that the lymphatics are not accessible by this route and require evaluation by another surgical approach. The radical perineal and retropubic prostatectomy have varying degrees of urinary incontinence associated with the procedures, however in most large series, the incidence is less than 6%.

Both radical approaches render the patient impotent secondary to disruption of the nerves to the penis responsible for vascular maintenance of erections.

TABLE II  
SINGLE AGENTS USED IN THE TREATMENT OF  
METASTATIC PROSTATE CANCER

Agent	Dose	% Response	Reference
Cyclophosphamide (Cytoxan)	1 gm/m <sup>2</sup> q 3 wks	~40-50%	38
5-Fluorouracil (5-FU)	600 mg/m weekly	~30-40%	38
Cis-Diamminedichloro- platinum (Platinol)	1 mg/kg weekly	~30%	39
Doxorubicin (Adriamycin)	60 mg/m <sup>2</sup> q 3 wks	~25%	40
Methotrexate	100 mg IV q 2 wks	~30-40%	39
Estramustine Phosphate (Estracyt)	600 mg/m <sup>2</sup> daily	~30%	39

Such patients who desire continued sexual activity can be fitted with a penile prosthesis. Walsh has modified the radical retropubic prostatectomy in such a way that the pelvic nerve plexuses responsible for erectile ability remain intact.<sup>21</sup> He reported potency in approximately 60% of males less than 60 undergoing his modified procedure. He has more recently reported a 100% potency rate following this procedure in 12 patients who were potent preoperatively.<sup>22</sup>

External beam mega voltage irradiation has been employed for treatment of Stage A, B and C lesions. Bagshaw has published the definitive treatise on the radiation management of local disease.<sup>23</sup> Radiation therapy appears to control local disease; however, the 10 and 15 year survival statistics are less than those for radical prostatectomy.<sup>24</sup>

Interstitial implantation techniques or brachytherapy as a means of delivery of radiation to local lesions of the prostate are a relatively new therapeutic modality. The radioactive isotopes currently employed include <sup>125</sup>I, <sup>198</sup>Au and <sup>192</sup>Ir. The results do not parallel survival rates achieved by radical prostatectomy, but brachytherapy may play a role in selective patients. Potency rates of as high as 90% are reported.<sup>25</sup>

#### Advanced Disease

The adult prostate is dependent on androgens to stimulate and maintain its normal physiologic functions. The testes and adrenal glands produce the majority of androgens while the adult testes are responsible for 95% of circulating testosterone. Huggins demonstrated the androgen-dependent nature of prostate cancer which has led to various forms of hormonal manipulation for the later stages of this disease.<sup>26</sup>

Serum testosterone is dependent upon an intact hypothalamic, pituitary, gonadal axis. Blockage of one or more arms in the axis will produce a positive response in the majority of patients with metastatic prostate cancer. The simplest way to disrupt the axis is by bilateral orchietomy. Orchietomy reduces serum testosterone by 95% and 70-80% of all patients will have a response.<sup>27</sup> Relapses in these patients are primarily due to the proliferation of androgen independent cancer cells.

#### Pharmacologic Manipulation of Advanced Disease

Patients who refuse orchietomy may be offered oral estrogen therapy. Estrogens suppress the

hypothalamic area and inhibit the release of LH from the anterior pituitary. This in turn will decrease testosterone production from the testes to castrate levels. Diethylstilbestrol is the estrogen most commonly used. One mg three times a day is usually necessary to suppress testosterone production to castrate levels, less drug may compromise effectiveness.<sup>28</sup> The complications of estrogen usage include salt and water retention, increased tendency toward deep venous thrombosis and subsequent pulmonary embolism, gynecomastia, loss of libido and increased incidence of cardiovascular disease. Gynecomastia may be prevented by delivering 400 rad of radiotherapy in a single dose to each breast prior to estrogen therapy.

The disappointing long term result of orchietomy or estrogen (DES) therapy was thought to be caused by continued androgen production from the adrenal gland or an "adrenal escape." In actuality, testosterone measurements in patients post-orchietomy or during DES therapy remain at extremely low levels.<sup>29</sup> Other estrogen preparations such as premarin (2.5 mg tid) and ethynodiol diacetate (0.5 mg bid) will reduce testosterone production to castrate level but do not appear to be superior to DES.<sup>30</sup>

Chlorotrianisene (TACE) is a pituitary inhibitor which will reduce plasma testosterone levels by 40-60%.<sup>31</sup> However, TACE is not superior to DES in overall response.

Hypophysectomy has been employed as a pallia-

tive procedure in patients who relapse following hormone therapy, however, responses are short lived. A selective chemical hypophysectomy may be produced with Buserelin or leuprolide, new gonadotropin release hormone agonists.<sup>32</sup> With prolonged use, these synthetic agents appear to alter pituitary feedback and desensitize the testicular response to LH subsequently decreasing testosterone production. The LHRH agonists appear to offer little advantage over DES or orchectomy as far as response. However, the risks associated with estrogen administration are reduced, thus making these agents useful in patients who are not candidates for DES and refuse an orchectomy. We are currently evaluating the combination of LHRH and flutamide (antiandrogen) for advanced disease.

#### *Inhibitors of Androgen Synthesis*

Adrenal testosterone is synthesized from cholesterol by five enzymatic steps. Aminoglutethimide and spironolactone are two compounds which block this synthesis in two separate enzymatic steps, thereby decreasing testosterone production. Aminoglutethimide (250 mg qid) following orchectomy failure has produced a 40-50% response rate in metastatic prostate cancer.<sup>33</sup>

Synthetic imidazoles have been used in the management of superficial and deep fungal infections. An agent currently under evaluation is ketoconazole which decreases production of both testicular and adrenal androgens. Within 24 hours following high dose ketoconazole, serum testosterone is at castrate levels.<sup>34</sup> Ketoconazole has been shown to reduce the cortisol reserve and steroid supplementation may be necessary in some patients, especially those in stressful situations.<sup>35</sup>

#### *Antiandrogens*

Antiandrogens are compounds which directly compete with the endogenous androgens for binding sites on the target tissue. Two antiandrogens known to compete with dihydrotestosterone at the prostatic cell level are cyproterone acetate and flutamide. Cyproterone acetate is a progestational agent that not only competes with dihydrotestosterone but also inhibits LH release from the pituitary.<sup>36</sup> Flutamide is a nonprogestational, nonsteroidal compound that blocks dihydrotestosterone. It has successfully been used in doses of 750 mg daily to relieve pain and obstructive symptoms.<sup>37</sup>

#### *Cytotoxic Agents*

A frequent problem that the physician faces is the patient with disseminated prostate cancer who re-

lapses after hormone manipulation. Put another way, this is the patient who by the nature of hormonal therapy selects out androgen-independent carcinoma of the prostate. It was in this group that single cytotoxic agents were first evaluated. Initial responses were disappointing, and as a result physicians seldom offered chemotherapy to their patients following hormone failure.

The National Prostate Cancer Project was organized to accurately assess the value of chemotherapy in patients who failed standard hormone manipulation. In addition to chemotherapeutic trials, adjuvant studies are ongoing evaluating definitive radiotherapy or surgery for high stage prostate cancer localized to the pelvis.

The initial protocols of the National Prostate Cancer Project compared single agents to each other with strict criteria as to what constituted a response. From these studies drugs that have shown to be effective in hormonally-unresponsive patients include cyclophosphamide, 5-fluorouracil, methotrexate, cis-platinum, doxorubicin and estramustine phosphate (see Table II). Response rates for each of these agents used as a single agent is less than 50% with most responses lasting less than six months.<sup>41</sup>

Currently these agents are being used in protocols in various combinations to evaluate any added efficacy in the response rates. To date combination chemotherapy has not produced complete responses but many partial responses and patients with stable disease are being reported.<sup>42</sup> These studies as well as others by the Southwest Oncology Group have established the value of cytotoxic therapy in patients with advanced prostate cancer refractory to hormonal therapy.

#### **Summary**

In summary, prostate cancer is one of the most common malignancies in men challenging the physician to an early diagnosis and treatment. The physician should strive to accomplish this with yearly physical and rectal examinations in all men over forty. Optimal treatment for each stage is still controversial. New diagnostic and treatment regimens are being investigated that offer new hope not only for patients with localized disease but also for those currently refractory to treatment.

★★★

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#### **Acknowledgments**

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# Acromegaly

MERYL NASS, M.D., H. G. LANGFORD, M.D.,  
J. F. JACKSON, M.D., and A. D. PARENT  
Jackson, Mississippi

## Case Presentation

DR. NASS: The patient, a 39 year-old black female, presented to the University of Mississippi Medical Center Emergency Room with the chief complaints of pain, swelling and paresthesias in her hands and feet for the previous month. To investigate this complaint, she was scheduled for admission to a medical service where she provided the additional history that her diabetes mellitus, which had been present for six years, became "out of control" four months prior to admission, when she required hospitalization and an increase in daily insulin dosage to 60u NPH 9:00 a.m. and 35u 9:00 p.m. She also had a 40 pound weight loss in the past year, and reported malaise, weakness, and heat intolerance. She denied nervousness, change in skin or hair texture, or change in bowel habits. Her menses ceased suddenly eighteen months prior to admission, after which she had hot flashes. She denied galactorrhea, or changes in facial appearance, but did report some widening of the spaces between her teeth. There had been no increase in headaches or visual symptoms.

On examination, she was a pleasant, mildly obese lady with a broad nose and somewhat prominent mandible. Her temperature was 98.7; pulse 104/minute; respirations 18/minute; blood pressure 130/90 mmHg. The physical examination was notable for a large mouth and tongue, and widening of the spaces between the teeth. Funduscopic examination showed sharp discs, mild arteriolar narrowing, with visual fields intact to confrontation. There was a diffusely enlarged thyroid. The lungs were clear. The heart had an S4 sound. The liver span was 20cm in the mid-clavicular line, and the spleen tip was palpable. The breasts were atrophic. There was no edema of the extremities, but very large heel pads were present. On neurological examination, the reflexes were very brisk although symmetric. There was a mild generalized decrease in strength, but normal muscle bulk and tone.

Pertinent laboratory findings included glycosuria but an otherwise normal urinalysis. The hematocrit was 46 percent, WBC 7,000, with normal differential and red cell indices. Clinical biochemistry: CO 26; Cl + 98; Na + 132; K + 4.7; total bilirubin 0.4; CPK 63; glucose 331; BUN 14; albumen 4.1; globulins 3.3; total protein 7.4; calcium 10.3; cholesterol 231; SGOT 19; alkaline phosphatase 72; LDH 238.

Repeat calcium levels varied from 9.9 to 11.9 mg/dl and phosphorus from 4.4 to 5.4. PTH was 1,350 units. An initial growth hormone level was  $> 13.5$  (normal  $< 5$ ).

A TRH stimulation test was performed. Starting at a baseline GH level of 155, the GH level peaked at 600 at 30 minutes after the TRH challenge. The FSH was 11.7 and LH 9.9. Prolactin was 13.3. T3 resin uptake was 29.1. The T4 was 9.9, T3 1.54, and TSH 1.5. ACTH was 21 (normal  $< 130$ ). Glucagon was 142 (normal 25 to 175). Somatomedin C was 6.0 (normal 0.45 to 2.2).

The plain skull x-rays demonstrated a rather prominent mandible as well as increased thickness of the calvarium (see Figure 1). The sella was volumetrically enlarged without any definite evidence of erosion. X-rays of the ankle demonstrated marked thickening of the fat heel pad which measured approximately 30 mm (see Figure 2). A high resolution CT scan of the sella demonstrated an enhancing intrasellar mass with inferior ballooning of the sella floor on the left (see Figure 3). A trans-septal transsphenoidal adenomectomy was performed on July 1, 1983. A 2.5 cm soft grey tumor was resected from the left lateral margin of the sella. Pathologic studies revealed that this was a pituitary adenoma with both sparse and densely granulated type growth hormone secretory granules.

Thyroid scanning revealed a large gland which had normal iodine uptake plus a "warm" nodule in the left lobe of the thyroid. Visual field testing by Goldman perimetry was normal.

The hospital course was unremarkable apart from the need to increase her insulin dose, and persistent pain in the extremities. Following surgery, her insulin requirement dropped to about 10u per day. She

From Medical Grand Rounds, University Medical Center, Jackson, MS.

was given steroid replacement initially, but it was tapered rapidly. She remains euthyroid on no replacement. Calcium and phosphorus levels remain in the normal range. Her cortisol, FSH and LH levels are normal as well. Three months after surgery, her baseline growth hormone level is 2.0.



Figure 1. There is a prominent mandible, as well as increased thickness of the calvarium. The sella is enlarged without erosion.



Figure 2. The heel fat pad measures approximately 30 mm, which is markedly thickened.

## Discussion

DR. LANGFORD: This patient exemplifies many of the features of acromegaly. A recent review of acromegaly from Scandinavia quantitates the frequency of these abnormalities.<sup>1</sup> The special value of this review is that it gives the frequency with which the abnormality was the mode of presentation, versus the frequency with which the abnormality was found in the total group of acromegals (see Table 1). For instance, 14 percent of the patients presented because of their characteristic change of appearance, resembling that found in this patient. However, 100 percent of the patients had this abnormality. Only seven percent presented because of their acroparesthesias, yet 70 percent had symptoms such as the numbness and tingling found in this patient's hands and feet. The dichotomy between the frequency of the finding as a mode of presentation and the overall prevalence of the finding is especially marked for hyperhidrosis, where only two percent of the individuals presented with this as the chief complaint, yet 82 percent of the patients had it. It was prominent in the case under discussion. One-fifth of the patients were hypertensive, but only nine percent were first seen because of their hypertension. Cardiac problems are frequent in acromegaly, but only five percent of the patients presented because of these problems. However, the myocardial hypertrophy of acromegaly at times does lead to a cardiomyopathy, which is not always reversible after cure of the

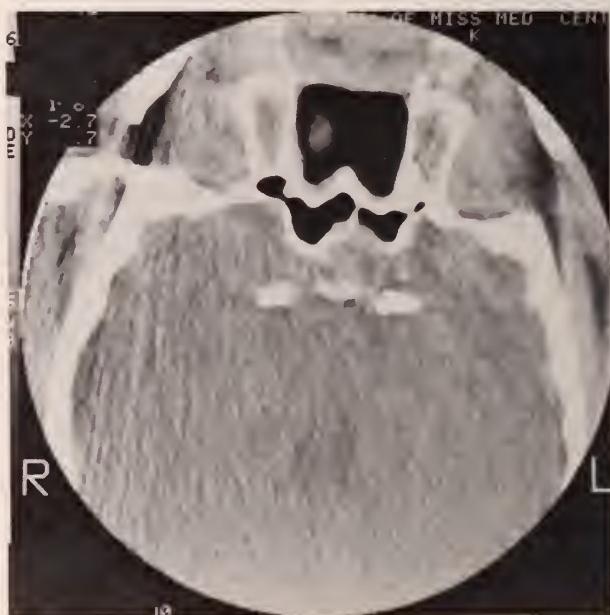


Figure 3. CT scan of the sella shows an enhancing intrasellar mass with inferior ballooning of the floor on the left.

acromegaly. Half of the patients had headaches, and 14 percent of them originally presented because of headache. Menstrual and fertility problems were frequent in women of child-bearing age, and one-fourth of all women presented because of these problems. This finding would suggest that the gynecologist or family physician should be one group of practitioners who detect early acromegaly. The comparable situation in the male is interesting. Forty-three percent of men were impotent, but only four percent of men had that as their presenting complaint. It seems that men are much less willing to consult the physician for problems in this sphere.

The physicians in charge of this patient wished to rule out co-existing hyperthyroidism because of patient's sweating weakness and good appetite. Hyperthyroidism is diagnosed in acromegaly much less frequently now than good laboratory aids are available than formerly, when the hyperhidrosis and thyroid enlargement which frequently occurs in acromegaly led to the diagnosis of hyperthyroidism. However, hyperthyroidism does occur in conjunction with acromegaly, and it is indeed the situation for that very rare syndrome, hyperthyroidism due to pituitary causes. Six cases with coincidental hyperthyroidism and acromegaly have been reported to date. The five cases which have been reported have had no eye signs, but as exophthalmos has been seen with TSH-producing pituitary adenomas, the possibility should be considered even if the patient is exophthalmic. The major laboratory clue to pituitary hyperthyroidism is an inappropriately elevated TSH. In the setting of hyperthyroidism, a TSH which is in the middle of the normal range should be considered inappropriately elevated.

Laboratory confirmation of acromegaly, suspected because of the characteristic physical findings combined with the hints from the patient's history which we have noted, is dependent primarily on measurement of the serum growth hormone. The normal resting growth hormone is less than 5 ng/ml in most laboratories. Growth hormone normally can be suppressed by a glucose load. Acromegalic patients may be resistant to that, although if the growth hormone is markedly elevated a modest reduction after glucose load can occur in definite acromegalic patients. Growth hormone can be elevated early in sleep with stress and major exercise, and by hypoglycemia. Therefore, the circumstances of drawing the blood for growth hormone determinations are of importance. Somatomedin C determinations are valuable as confirmatory aids in the diagnosis of acromegaly. Actually, somatomedin C correlates better with heel-pad thickness as visualized on x-ray

TABLE I  
REFERRED PATTERN AND CLINICAL FEATURES IN  
44 CONSECUTIVE ACROMEGALIC PATIENTS

	Mode of presentation		Overall prevalence	
	n	%	n	%
Change of appearance/				
soft tissue swelling/acral growth	6	14	44	100
Weight gain	—	—	20	45
Gigantism	—	—	1	2
Acroparaesthesia	3	7	31	70
Facial neuralgias	—	—	3	7
Arthropathy	2	5	13	30
Back pain	1	2	9	20
Tiredness	1	2	25	57
Hyperhidrosis	1	2	36	82
Thirst (without diabetes insipidus)	1	—	6	14
Hypertrichosis	—	—	14	32
Ear/nose/throat complications	1	2	14	32
Hypertension	4	9	9	20
Cardiac complications	2	5	10	23
Impaired glucose tolerance	—	—	13	30
Manifest diabetes mellitus	—	—	1	2
Abdominal pain	3	7	14	32
Inguinal or umbilical hernia	—	—	10	23
Renal stones	3	7	8	18
Goitre				18*
Headache	6	14	23	52
Hypersomnolence	—	—	4	9
Loss of concentration and/or memory	—	—	4	9
Visual impairment	2	5	6	14
CSF-rhinorrhoea	—	—	1	2
Oligo-, amenorrhoea/infertility	5	24‡	11	52‡
Impotence	1	4‡	10	43‡
Loss of libido	—	—	11	25
Galactorrhoea	1	2	10	48‡
Cystic mastopathy	—	—	4	19‡
Diagnosis by chance	2	5	2	5

\* One patient with a papillary carcinoma.

† Percentage of the female patients.

‡ Percentage of the male patients.

than does serum growth hormone, probably because growth hormone levels are more variable.

One point of interest in this patient's story was her hypercalcemia, which was associated with an inappropriately high parathyroid hormone level. It has recently been shown that acromegalics have an abnormally high level of Vitamin 125 D-3, a very active Vitamin D metabolite. That finding may be one of the causes of elevated serum calcium, but the elevated parathyroid hormone level suggests that we should consider that the patient has hyperparathyroidism also. If this finding turns out to be valid, we

will have to consider whether this patient has one of the multiple endocrine adenomatosis syndromes. With that in mind, we have asked Dr. John Jackson, professor of medical genetics and chairman of the Department of Preventive Medicine, to advise us on how hard we should search for diseases in this classification in the patient's relatives, and what chances will her relatives have for having these diseases.

### Genetic Aspects

DR. JACKSON: Several inherited syndromes include acromegaly as one feature. A pertinent reference is *Mendelian Inheritance in Man* by Victor McKusick now in a new 1983 sixth edition.<sup>2</sup> There has been one type of isolated acromegaly thought inherited in some individuals as a dominant disorder, but not definitely confirmed to be inherited. Another definitely confirmed autosomal dominant disorder is that of acromegaloid changes, cutis verticis gyrata and corneal leukemia. In this condition, the acromegaloid changes are not associated with increased growth hormone levels and the redundant scalp skin folds and corneal opacity would eliminate it as consideration for the patient presented. There are three multiple endocrine adenomatosis syndromes, all inherited in autosomal dominant fashion. Multiple endocrine neoplasia Type I (MEA I, MEN 1, Wermer syndrome and Z-E syndrome being synonyms) includes parathyroid adenoma, islet cell adenoma, both insulinoma and gastrinoma in addition to pituitary tumors, some of which may produce acromegaly. The increased serum calcium suggests the possibility of parathyroid adenoma in addition to acromegaly and thus multiple endocrine adenomatosis Type I in the patient presented. In answer to the specific questions of Dr. Langford, the use of an automated chemistry to include calcium, phosphorus, and glucose would perhaps be the starting point for screening first degree relatives for the possibility of MEA I. The two additional multiple endocrine adenomatosis syndromes are Type II which includes pheochromocytoma and amyloid-producing medullary thyroid carcinoma or Sipple syndrome. In Type II, there has been noted in some patients a deletion of chromosome 20. In Type III, there are mucosal neuromata about the eyelids and the oral mucosal surfaces in association with endocrine tumors.

DR. PARENT: The modern-day radiologic evaluation of a patient for pituitary tumor is most simply and completely performed by a high resolution CT scan with coronal views. In a non-invasive manner, the sellar-parasellar area is well visualized, and

possible ventricular hypothalamic encroachment is appreciated. By multiple thin sections at 1.5 mm intervals through the sella, even microadenomas of three and four millimeters in size have been identified.<sup>3</sup> Angiography is rarely performed except in large invasive tumors or in cases of possible intrasellar aneurysms. Pneumoencephalography, ventriculography and polytomography have virtually been replaced by the new modern techniques of computerized tomography. It is anticipated that the nuclear magnetic resonance scan will give even better definition of basilar skull tumors, including pituitary tumors.

In planning the therapy of patients with pituitary tumors, the patient's age, general health, as well as the tumor size and invasiveness are considered. Therapeutic options may include medical therapy, radiation therapy, and transsphenoidal surgery either alone or in combination. In case of recurrent pituitary tumor, prior therapy may significantly modify further therapeutic endeavors.

Transsphenoidal surgery in acromegalic patients presents unique technical problems.<sup>4</sup> Because of the enlarged epiglottis and tongue, these patients may be hard to intubate. Decreased pulmonary compliance, cardiomyopathy and hypertension often further complicate anesthesia. In the surgical dissection, the tissues tend to bleed much more readily and have marked connective tissue hypertrophy especially in the nasal turbinates and septum. Most growth hormone secreting pituitary tumors are found in the anterior lateral aspects of the pituitary. A selective adenomectomy with preservation of the normal pituitary can usually be performed unless the pituitary gland has been obliterated by an invasive adenoma or pituitary apoplexy. Within 24 hours postoperatively, these patients have their nasal packs removed and are tolerating oral diets. During the initial postoperative period, augmentive cortisol therapy is provided. Persistent postoperative pituitary insufficiency has been noted in less than five percent of patients. Cerebrospinal fluid rhinorrhea, sinusitis, vascular injuries and hemorrhage are other complications that rarely occur.

In cases with preoperative growth hormone values of less than 40 ng/ml, at least 80 percent of patients can anticipate having a normalization of their hypersecretory status.<sup>5</sup> However, in patients with growth hormone values greater than 40 ng/ml, only about 35 percent have normalization of their growth hormone values.

By light microscopy, most of these tumors are identified as eosinophilic adenomas. Immunohistochemical stains demonstrate that 29 percent of these

tumors are growth hormone tumors, 41 percent are mixed growth hormone-prolactin secreting tumors and at least 27 percent have multihormonal granules within the tumor. In less than two percent of cases, growth hormone hyperplasia has been reported.

Conventional radiation therapy in dose fractions of 150 to 180 rads per day with a total dose of 4500 rads has provided good clinical results in the treatment of acromegaly.<sup>6</sup> In most instances, a tissue diagnosis should have been obtained prior to initiating radiation therapy. Normalization of growth hormone values to less than five ng/ml occurs in less than 17 percent of patients at one year, and only 42 percent of patients at five years. Approximately 70 to 80 percent of patients will have normalized values ten years after therapy. These delayed results obviously allow the vascular, metabolic and cosmetic defects to progress during this time. Delayed hypopituitarism occurs in approximately 25 percent of patients who receive radiation therapy. The adrenal and gonadal axis are particularly vulnerable to these hormonal deficiencies. Although visual complications, as well as new neoplastic lesions, have been reported to occur subsequent to radiation therapy, this occurrence appears to be quite rare.

Bromocriptine has been utilized by several European centers to treat acromegaly.<sup>7</sup> Complete normalization of growth hormone values does not usually occur and the tumor size apparently does not regress. Seventy percent of patients have been classified as clinical responders where potency was restored, headaches abated, hand sizes decreased, hyperhidrosis diminished, and, most importantly, metabolic defects such as diabetes were normalized. Doses ranged from 20 to 60 ng/ml per day and symptoms immediately returned on cessation of the medical therapy. This beneficial effect of bromocriptine on the acromegalic syndrome, despite the persistent

elevated growth hormone level, would appear to therapeutically result from a decrease of the biologically active form of growth hormone preferentially to its oligomeric form.<sup>8</sup> At the higher dose level of bromocriptine, side effects of nausea, alcohol intolerance, dry mouth, constipation, leg cramps, hypersomnia and depression are noted. The financial expense of the drug should also be considered with this chronic therapy. On the other hand, bromocriptine has not been found to cause pituitary insufficiency or increase the incidence of pituitary hemorrhage.

Although transsphenoidal surgical adenectomy is the initial preferred treatment for acromegaly due to a growth hormone secreting pituitary tumor, radiation therapy and medical therapy are useful adjuncts in patients who are unsuitable candidates for surgery, or where incomplete resection of this tumor was accomplished. ★★★

2500 North State Street (39216)

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# A Case In Point For Early Intervention: Coronary Artery Disease

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# Health Issues of the



These reports bring you information on what the AMA is doing, on behalf of the profession and the public, to influence decisions that will affect health care in the next decade and beyond.

## The AMA: A Leader in Medical Science

One of the most important priorities of the American Medical Association for this or any decade is to provide leadership in—and to direct professional and public attention to—the field of medical science. The AMA's historic support of the work of medical researchers has helped make our health care system the best in the world. In a time of conflict in health care policymaking, this unsurpassed record in science and the anticipation of future breakthroughs in the field are one of the attributes that make American medicine worth defending.

The AMA's commitment to this field is expressed clearly in the Association's traditional mission: to promote the art and science of medicine and the betterment of the public health. A key word is "promote," for the AMA is uniquely suited to inform the profession and public about significant developments in medical science. Reports in the general news media on achievements in medical research often cite the *Journal of the American Medical Association* (JAMA). The AMA has the national visibility and prestige to thoroughly and authoritatively report clinical research findings.

To act on this deep concern, the AMA conducts myriad scientific activities that deserve the support of every physician. Some of these are summarized below.

- The AMA *Council on Scientific Affairs* advises the Association, the profession at large, government, and other health organizations on various aspects of medical science. The Council concerns itself with a variety of policymaking, professional and public information activities, as well as with evaluating and proposing scientific initiatives that might be undertaken by the AMA unilaterally or with other organizations. The Association publishes annual reports on specific scientific developments monitored by the Council. For instance, recent reports covered the effects of pregnancy on work performance, how Methaqualone abuse limits its effectiveness, the physiological and psychological benefits of exercise for older persons, and new therapies for the pharmaceutical dissolution of gallstones.
- With the *Diagnostic and Therapeutic Technology Assessment (DATTA) project*, the AMA fulfills a vital function on behalf of the profession and the public. The DATTA project studies new medical technologies and procedures to determine their effectiveness and suitability for clinical uses. These evaluations, conducted by panels of physicians expert in their fields, offer indispensable guidance for medical researchers, for practicing physicians and for national health policymakers.
- The AMA publishes the most authoritative, informed and current reference source on drugs and drug therapy available today—*AMA Drug Evaluations*. This comprehensive text is provided to one class of medical students each year and its contents have been adapted for transmission via computer.
- The five-digit coding system for medical and surgical procedures, *Current Procedural Terminology*, is produced by the AMA. This system is now used by most third-party payors.

- *The AMA is the world's largest publisher of authoritative, up-to-date scientific information.* *JAMA*, which is published in seven languages, enjoys international prestige for its reports on significant clinical developments. The AMA's nine monthly specialty journals provide in-depth, specific information on particular fields of medicine.
- *The AMA also disseminates scientific information via electronic communications systems.* By early 1985, physician subscribers will be able to use their computers to search for and retrieve material from the entire texts of current issues of *JAMA* and the specialty journals. In addition, the GTE Medical Information Network (MINET®) disseminates up-to-the-minute clinical and socioeconomic information via computer terminal to physicians, allied health professionals, hospital administrators, medical librarians and others in the health care field. MINET® features the AMA's data base service, AMA/NET, which currently offers six information and bibliographic services. Also, on-line access is available to more than 300 computerized data bases in the AMA library, one of America's most comprehensive and up-to-date.
- The AMA strives to provide information on recent advances in clinical nutrition and other disciplines to physicians, allied health personnel and the public, and to explore and identify special issues that affect personal health. The program seeks to help physicians respond to preventive medical concerns being expressed by the public and to train patients in caring for themselves and in the use of self-monitoring.

The AMA focuses on developments in a wide range of nutrition and personal health topics, including aging, alcoholism, auto safety, boxing, drug abuse, infant mortality, pollution, radioactive wastes and smoking. Through many of these programs, the Association contributes both to the overall public health and to today's vital policymaking goal to reduce medical costs while maintaining and enhancing the quality of care patients receive.

The AMA's scientific efforts in recognizing and evaluating scientific trends and achievements and reporting on these developments have served physicians and the public well. These activities will continue to prove fruitful if physicians—all physicians—support the AMA.

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# A System That Cares

JOSEPH F. BOYLE, M.D.

MR. SPEAKER, Mr. President, Friends, it is indeed a pleasure to be at this meeting of the Mississippi State Medical Association. I believe it is the first opportunity I have ever had to address an official body of your state medical association, which makes it an even greater pleasure and honor. I know that some time during this meeting you will be acting on many resolutions that reflect your concerns about changes that are occurring in medical practice, changes in the environment that are being pushed upon us by both state and federal government, and changes in attitudes and the agenda of the private sector as well — all of these reflecting your commitment to the continuation of the finest medical care system in the world. This likewise is the agenda of the American Medical Association.

I know also that you will be acting upon a resolution which would cause Mississippi to become the second state to adopt unified membership this year. That is, all members of our profession belong to a single organization which begins with the county medical society, the state medical association and finally a federation of state medical associations in AMA. We most certainly need that kind of unity today if we are going to be effective in the future. As your President, it would be a far better position for me if I did represent all the membership of Mississippi State Medical Association, not simply that 75 percent of you who actually do belong. Also, in your own enlightened self interest, it would mean that if the AMA House of Delegates adopts a dues increase this year for next year, those of you who are now AMA members would have less of an increase than would other physicians around the country. This is because the AMA, in recognizing the importance of unified membership and recognizing that you would then be paying more than your fair share, will discount to AMA members in this state ten percent. I

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*"We have opportunities to take strong positions that demonstrate very clearly that we do exist as professional associations to serve as the public's advocate, to stand for the public's good."*

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won't discuss that any further because that's your business, and I am certain that you understand Mississippi physicians far better than I can coming from California.

I will address some things that have happened this past year that in my view represent some of the problems but also some opportunities that we in medicine have today to provide increasingly strong leadership.

I'll begin with a story that illustrates some of what I am talking about. There was an Admiral of the fleet who was proceeding down the Pacific Coast on his flagship, standing on the bridge with a radar man, a radio man and a man counting the till. On the screen in front of them, there was a little blip that came up that suggested that there was some kind of a small craft in their path, so the Admiral said to the radio man, "would you please tell that ship to alter its course 15 degrees to the south." Which he did. The message came back and said, "alter your course 15 degrees to the north." The Admiral said, "would you please tell that ship to alter its course to the south, I am an Admiral in the United States Navy." Word came back and said, "suggest you alter your course to the north, I am a Seaman 1st Class, in the United States Navy." This blew the Admiral's mind! He said, "would you tell that sailor to alter his course immediately, we are a battleship." And the word came back and said, "you best alter your course pretty soon, I am a lighthouse!"

So we have the opportunity to steam full speed ahead and probably flounder on the rocks and shoals

President, American Medical Association, 1984-85. Presented at the House of Delegates, May 16, 1985, Biloxi, MS.

ahead of us or we have an opportunity to be a beacon, so that there will be light in the future for medicine and for medical care for the people of this nation.

A number of things happened last year that illustrate where some of those opportunities are. America won and wept at the Olympic games. We re-elected a president for the first time in a couple of administrations. The Congress chose to renege on a promise it had made to people on Medicare twenty years ago, but American physicians demonstrated that they have compassion and concern for their patients and opted instead for ethics instead of monetary gain. These are some of the things that happened.

Let us talk about them for a few minutes.

The 1984 Olympic games were held in that most outstanding of American cities, with none of the predicted chaos, calamity or confusion. They were privately financed and produced enormous profits. Outstanding opening and closing ceremonies and an outstanding performance on the part of American athletes provoked an outpouring of pride in the U.S.A.

Patriotism is fashionable again, as in faith. The medical community performed in an equally exemplary fashion in that the only news at all was that there was no news. The closest we came to a medical event occurred in the last 600 meters of the women's marathon, when for an agonizing five or six minutes a courageous Swiss athlete crab-crawled her way around the coliseum track and finished, in the first ever women's Olympic marathon run. And while the media experts in the booth opined that she might suffer permanent brain damage from heat stroke, the medical experts jogging around the track with her correctly identified that she manifest no more than the usual physiologic effects of extreme physical exertion and allowed her to finish — something that she will remember the rest of her life.

At the same time, in another arena, just about 200 yards away, there was an event of medical significance going on, the finals of the Olympic boxing. Now as you know, in the Olympics a knockdown counts no more than a light tap on the forehead cleanly delivered, something which was endlessly intoned by Howard Cosell. But as you watched the finals of the Olympic boxing, it was evident that while the referees may score on points, for the spectators it's the punishment that counts and for the media it's the dollars that count — a fact that was brought home very clearly last summer after Dr. George Lundberg published a superb editorial in the *Journal of the American Medical Association* on the

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**"The AMA Board of Trustees will be submitting a report . . . with a long list of proposals which we intend to pursue to demonstrate that we can be and are accountable. Many of these will involve local and state medical associations and hospital medical staffs."**

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subject of brain injuries sustained by boxers. Then none other than the president of one of the national networks found it necessary to go on the tube and advise the American public that the only reason that the AMA was interested in boxing was to divert attention from the fact that we were failing to meet the medical needs of the people of the United States. An opportunity.

Last December the American Medical Association House of Delegates adopted a resolution calling for a ban on boxing; and I knew that, although the House of Delegates had acted upon 150 other items of business of almost equal importance, that the instant the House adopted that resolution within a matter of an hour, if not minutes, I would be in front of television cameras facing a horde of reporters or on the telephone talking to radio stations all over the United States wanting to know why the AMA was taking this stand on boxing. That has been an extremely interesting experience, because at the outset among the very first questions that I always received were, hey, are you people serious? You really think that the American public would tolerate a ban on boxing? And just two weeks after the House took that action, *U.S.A. Today* in a poll found that almost 50 percent of the American public agreed with us at that time. Just barely over 50 percent disagreed, and since then with increasing frequency my mail from around the country has carried a theme very much like that of a young boy from Princeton, New Jersey, who wrote to me and said, "my father and I like to watch boxing, but I've been reading what you've said, Mister President (that has a nice ring to it), and I agree with you, it is time to ban a sport whose only purpose is to hurt people — keep right on."

We have opportunities to take strong positions that demonstrate very clearly that we do exist as professional associations to serve as the public's advocate, to stand for the public's good. And we need to seek more of these opportunities, we need to take more positions which will make it as clear as possible that it is the health of the individual, the health of America we stand for, not simply for vested self-interest. We have an opportunity right

now to address a very serious question of accountability for our profession.

During the last three to five years, with increasing frequency, there have been articles published that demonstrate across the nation that there are extraordinary variations in patterns of medical practice, that there are variations in the utilization of medical and surgical services that may be all the way from 20 to 100, and in some instances almost 200 percent. This is beginning to become a part of the gospel in discussions that we have with both private industry and with those who would regulate us representing government, because they assume that all of this represents over utilization of service on somebody's part, and they take these numbers and extrapolate them from little communities in Massachusetts or Iowa or Maine, spread them across the country and assume that anywhere from 20 to 40 percent of what is being provided could be eliminated, and save all those hundred billion or more dollars.

Now we know that almost certainly some of this represents under utilization — provision of less than optimal care. Some of it unquestionably is due to variations in the availability of resources, both technical and personnel. Some undoubtedly is simply due to differences in patient preferences. But also, unquestionably some of this does represent inappropriate care.

The AMA Board of Trustees will be submitting a report to the House of Delegates next month with a long list of proposals which we intend to pursue to demonstrate that we can be and are accountable. Many of these will involve local and state medical associations and hospital medical staffs. But we need to take that on as an urgent mission if we are going to retain confidence of the public that we are accountable to them. When your delegates return from the next meeting of the House of Delegates I am sure they will be reporting this to you and I urge that all of you become actively involved.

Last year the nation reelected Ronald Reagan. This poses for us both some serious problems and challenges, but in my view some unique opportunities. Problems and challenges because the AMA supported Ronald Reagan during the first four years of his administration in some needed cuts in the budget that were called for to help rescue this nation from an economic disaster with high interest rates, high unemployment and ever increasing inflation that was stagnating the economy. We did so because we believe that as responsible citizens, American physicians should do their share. But we have reached the point now where we can no longer support these kinds of reductions in federal support for

programs that do affect the health of men, women and children all over the country — where we know that as many as six to nine million people are now denied access to reasonable medical services because programs that they have looked to in the past for support have now been reduced or abandoned.

We also note with some very serious concern that among the proposals that are being considered are those which would begin to erode the support for basic research in the United States, the foundation upon which the future will be built, and even more importantly, that there are now substantial reductions being proposed in those funds which are used by medical students and are necessary for graduate medical education residency training. They also intend to reduce the loan guarantee funds by almost 60 percent which would mean for this country very soon that the only ones who could aspire to a career in medicine would be the sons and daughters of the very affluent. It certainly would not be good for the practice of medicine in the future that they are also very seriously considering eliminating Medicare payment for both the direct and indirect costs of graduate training in medical education in hospitals.

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*"So we need . . . to make certain that we . . . take into account our patients' financial needs and try and meet their concerns and spend just a little more time talking about their problems, be they medical or otherwise, to demonstrate to them that we do care. We know we care. It is absolutely essential for the future that people understand that as well."*

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Through a very ambitious project known as the health policy agenda for the American people, involving about 155 different organizations whom we have invited to join us, the AMA is trying to develop a rational, comprehensive long-range set of policies upon which future planning can be developed. I will not give you all the details of the project, because my assignment this morning is to talk and your task is to listen and I would prefer to finish before you do. I would simply point out that we are addressing the questions of financing medical education, financing research, financing graduate training for the future, and at this moment we must take absolute opposition to these efforts to change programs before we have had an opportunity to develop some alternatives. We have told the President in very unequivocal terms in a letter that we sent to him just about a month ago that he must not insist upon these changes without

drastically threatening the future of our ability to provide reasonable medical care to the people who put their well being in our hands.

As your president, Dr. Moffitt, pointed out, during this last year American physicians demonstrated that they do have compassion and concern not only for their elderly patients but for all of their patients as well. Eight percent of the physicians in our country did comply with the AMA request to voluntarily freeze fees. And even though the Congress attempted to divert attention from its own profligacy by freezing reimbursement for Medicare patients' physicians services. And while 29 percent of physicians did agree to become participating physicians, when we surveyed them we found that fewer than 20 percent of doctors decided to become participating or non-participating (ie, to accept the assignment or not accept the assignment) because of their own personal financial interest. Rather, the overwhelming majority made their decision based upon the needs of their Medicare patients. And we are very proud of that indeed!

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*"... although the opportunity may arise to enrich our purse, we shall opt instead to enrich our lives as we seek to enhance the lives of those we touch, those who place their well being in our hands. We stand prepared to care for all people, simply because we care."*

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We also hope that American physicians will continue to demonstrate this concern because we know that ability to pay for medical care is a serious problem today for large numbers of people in this country. It possibly accounts in part for the fact that we have had a very substantial erosion in the public's confidence in American doctors. Our most recent survey data indicate to us that fewer than three out of ten people believe that doctors charge reasonable fees. No more than two out of ten think that doctors are trying to hold down costs. Significantly four out of ten people think that doctors believe that they are better than other people and no more than that same number believe that we spend enough time with them or are really concerned with them. Eighty percent of people give their own doctors good marks on each of these issues — reasonable fees, costs, concern and their mutual respect.

Why is it then that we have this dichotomy in public opinion about doctors in general? We better just look at some of the things going on because peoples' perceptions are the aggregate of all of their

experiences. And while it might be nice to take solace in the fact that people over the age of 65 have on the average about one and one-half times the resources as do people less than that age who are paying social security taxes and Medicare taxes to provide for their care, you can't eat averages. You know it has been said if you had one foot in a bucket of ice and the other in a pail of boiling water, on average you might be considered to be comfortable. You need to keep in mind that of those 26 million people over the age of 65 dependent upon Medicare there are forty percent living alone and living on less than \$7,000 a year of income. So that Medicare premium every month and increasing deductibles could amount to a very substantial part of the funds that they need simply for their own subsistence. And almost virtually all have sons and daughters and friends and relatives who are aware of that. There are also some seven to nine percent of the people in this country who are unemployed and uninsured. So we need urgently to make certain that we, and all of our colleagues now, more than ever in the past, take into account our patients' financial needs and try and meet their concerns and spend just a little more time talking about their problems, be they medical or otherwise, to demonstrate to them that we do care. We know we care. It is absolutely essential for the future that people understand that as well.

As I indicated earlier, I believe that Ronald Reagan's reelection presents us with an extraordinary opportunity, an opportunity to provide leadership for all of the country, a leadership in a restoration of faith. Fully a year and a half before Ronald Reagan was reelected president, I was absolutely certain that he would not only be renominated but reelected by an overwhelming majority. Why? Because I thought that people perceived Ronald Reagan as some kind of financial genius who had rescued this country from economic disaster? No! Because I thought that people looked at Ronald Reagan and then saw a knight on a white horse with a shining silver shield who was going to protect us from a mongrel horde coming over the icecaps to invade the west? No! Because American people believe that Ronald Reagan is a good man? Yes!

I am sure you sense it here in this House of Delegates and certainly sense it in your own community that people today are looking for a return to integrity. We've gone through three and a half decades of a permissive society in which things have gone from being clearly wrong to not so bad, to almost right, and today are acceptable social behavior. I have heard it said that if Moses came down from the mount tomorrow, he wouldn't bring with

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**"We can begin by a simple commitment, a rededication to a professional ethic . . . that says very simply — the patients come first."**

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him ten commandments, he'd bring ten guidelines. And whereas, God said "thou shalt not kill," and that's pretty clear, today it might be phrased something like: "the antihuman existence behavior being exhibited by some citizens is not in the best interest of society and ought to be discouraged at every turn."

We've seen the erosion of the public's confidence in all of the institutions to which it looks for its protection, in law, in education, in religion, in business and medicine. Now we can't do anything about lawyers and attorneys and educators and ministers, but we can do something about ourselves. We can provide leadership in a return to simple morality. We can begin to behave like a profession despite all of the kicks that we've been getting in recent years from the courts and the FTC and DRGs and Medicare and Medicaid reimbursement. We can begin to act like a profession that believes in itself — believes that it has a future because the public needs for us to believe in ourselves, because they need to believe in us. We can begin by a simple commitment, a rededication to a professional ethic. At the time of my inauguration, before the AMA House of Delegates, I asked those present could I declare on their behalf that we are a profession committed to a professional ethic that says very simply — the patients come first; that the patient's welfare shall be our concern and that neither race, religion, politics or economics will take precedence; that we have examined ourselves and find that our lives are dedicated to the service of humankind; that we have examined ourselves and declare that we will remain committed to caring for people; that although the opportunity may arise to enrich our purse, we shall opt instead to enrich our lives as we seek to enhance the lives of those we touch, those who place their well being in our hands. We stand prepared to care for all people, simply because we care.

Now that address was published in the August 10 issue of the *Journal of the American Medical Association*. Since that time, I have received hundreds and hundreds of letters from physicians from all over the United States. Doctors I have never seen before and likely never will in the future have written. I can paraphrase their message by a letter that was written to me by a doctor from one of the southeastern states

who said, "thank you, I had reached the point when I thought I might have to succumb to the pressures and bribes as I call them all around me, but now I know that even if I have to go it alone, I can commit myself to the ethic that led me to medicine in the first place, caring for people, because I will have my self respect."

I have also received hundreds of other letters from both physicians and non-physicians asking me if we, as a profession, or as a professional association, will declare a commitment to the sanctity of human life. And I will suggest to you ladies and gentlemen that as we forge in the mirrored mazes posed by genetic manipulation, in-vitrofertilization, and surrogate parenting; as we try to respond to the suggestion that was made by some that perhaps the very old and the very infirm would do everyone a favor if they would return to dust as soon as possible; as we try to answer the question, when does life begin, rights to live and rights to die, we will need to test the limits of our commitment to the individual. And we do have an opportunity to be that beacon, because if each of us will be committed to that mission there is a fire we can start.

I have tried from time to time to see how best I can express what is it that we are all about in medicine. An anecdote from early in my professional career may serve well in that regard. In the late 1950's I was asked to see a patient at the hospital where I work in Los Angeles, a 16-year-old daughter of another doctor — a beautiful child, beyond description and with the maturity and sensitivity and compassion that would grab your heart, and she was dying. She had a malignant lymphoma with diffuse pulmonary infiltration and recurring pericardial effusion. And her father could not believe that this darling of his life was ill, much less dying. One morning at 3:30 a.m. I was in the hospital room with this beautiful child of 16, already second in her class at the University at UCLA, an accomplished concert pianist, and a published poet. I was completing a pericardacentesis. She looked up at me and said, "I am dying, am I not Doctor Joe?" And I said, "yes, Julia you are." And she said, "there is not anything you can do about that is there, Doctor Joe?" And I said, "no Julia, there is not." And she said then, "will you do me a favor, the next time this happens, would you help me make daddy understand, let me say goodby to mommy, and then let me go." Today we could save that girl's life and cure her, but she will live forever no matter, in a system that cares. We have a future. Be that light, be that candle so there will not be dark.

God love you all.



## The President Speaking

### Smell Your Roses Now, Stanley

Ralph L. Brock, M.D.  
McComb, Mississippi

Through a chance remark about a picture I had found, I have had the unusual opportunity to have personal contact and get to know one of the elder statesmen in our association a lot better.

Stanley Hill of Corinth and my father were delegates from Mississippi and roomed together at the White House Conference on Aging in January 1961. I have never seen my dad more proud of anything he had done. As far as he was concerned, he, Stanley Hill and President Eisenhower were the only ones there!

After my dad died in 1964, a picture made at this conference was put away in a closet and it didn't show up again until we were clearing out this closet when my mother died in 1983. I was tempted to throw it out, because it was in a narrow frame three feet long. The memory I had of my father's pride in that trip made me save it and take it to my attic.

At a recent meeting in Jackson, I saw Stanley and told him that I had the picture. He wrote me later asking to see it, and this prompted a couple of letters between us. When I gave him the picture at another meeting in Jackson, he exchanged with me some copies of correspondence he had with my father. There was also a copy of Stanley's report to the MSMA House of Delegates in May 1961. The report was of historical interest to me because it was discussing methods of financing health care for the aged four years before the Medicare law was passed.

This report also showed evidence of serious thought and much time spent in its preparation. This brought to my mind how much dedicated service is given to our association by innumerable Stanley Hills that have accepted places of responsibility and given countless hours of their time to promote the activities of the Mississippi State Medical Association.

I am a relative newcomer, and I have been impressed by the large number of physicians that have given many years of service to our medical association. This is without pay and many times at great loss of time from practice.

I am afraid that we fail to show our appreciation and say a "thank you" as often as we should.

I am sending your roses now, Stanley, while you can smell them and enjoy their beauty. I know you will not mind sharing them with all the others who, like you, make us extremely proud to be Mississippi physicians.

## EDITORIALS

# JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION

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SEPTEMBER 1985

### The Magic Button

Once a week for five years now I have been privileged to sit down at my desk and push the magic button. I have told few people about this, for one group of people would think I was crazy and the other group would think I was bragging.

Truly the Lord did provide me with a miracle. I push the magic button and all at once out of my printer rolls that week's payroll checks with all "them taxes and other things" already figured out to where all I have to do is keep the money in the bank and the magic button pushed!

Who would have ever thought that life could be so laid-back and wonderful?

I have two feelings about computers:

1. I stand in awe at their vast memory abilities and capabilities.
2. I am the boss in charge of pushing the button, and as such, I am smarter than it is. I have to keep telling myself the latter because ever once in a while I'll "blow away" a whole disc of information and it takes me a long time to convince myself that I really am the boss.

Computers are like boats, in a way, ie, containers of metal or plastic into which you pour money. I have noticed another likeness in that about the time you get used to one (and it does just what you want it to do) you find that it is outmoded and that you need a bigger and better one.

I can foresee the day when I sit at my desk and put the patient in my in-office cat-scan, with laboratory tests, EKG record, chest x-ray, stethoscope recording, etc., all connected to my desk-top computer, feed in whatever other history and physical information I need, and come up with the most likely diagnosis — with which I may or may not agree. In the difficult cases I may give the patient a microchip (not to be confused with potato chip) to swallow. It would of course pass near the suspicious area and

give me the in depth study at close range.

Well, I can dream can't I?

With all these new gadgets to use, I thank God I am a family physician.

JOE JOHNSTON, M.D.  
Associate Editor

### Time to Board the Bus

Ever notice how long a pie will last before it's cut, or how fast it disappears after the first slice has been taken? A lot of hungry folks are out there ready to dig their knives into the health care delivery system dessert. In fact, it seems as if they want the whole meal.

First came the vegetable soup served by Uncle Sam. The trial lawyers are trying to carve our turkey as an entree, and here come labor, industry and the insurance companies to gobble up the pie by disguising themselves as HMOs, IPAs, and PPOs.

After observing bellwether states where multiple alternate systems are already entrenched, it seems impossible to provide patient care without an atlas listing what tests can or must be ordered by diagnoses, whom to call for preadmission certification, or to whom a patient may be referred because of affiliations instead of qualifications. Treating a person adequately under these circumstances is similar to a master chef's being required to consult multiple cookbooks and measure all the ingredients before serving a meal. The diner may not starve, but dinner certainly would be late, of poorer quality, and more expensive in the long run unless the patron gave up and left before being served.

Before having our lunch divided by entrepreneurs who know and care little about patient problems and the quality of their lives, but rather only the "bottom line," let us take the initiative, form a restaurant, and offer a menu. These plans are working well in

## **EDITORIAL/continued**

other states by holding down medical costs, providing quality medical care, and satisfying patients with better alternatives than others being offered in our rapidly changing environment.

The ideas of the leadership of MSMA, based on other societies' activities, will soon be presented to the membership. It is hoped that when this "Express Bus" pulls to the curb, that we will pay our fare, make a commitment and get on board. Otherwise, we may have to chase multiple local buses, walk, grab for a hot tail pipe as we are passed over, or cancel the trip to see about sick "Aunt Nellie."

WHITMAN B. JOHNSON, M.D.  
Clarksdale, MS

## **LETTERS**

Dear Sirs:

Enclosed you will find a copy of a letter which I addressed to the Medical Assurance Co. of Mississippi in regard to my malpractice coverage.

I feel I have been misled in regard to purchasing tail-end coverage upon cancellation of my policy.

I would like to have you print this letter to warn the physicians in Mississippi as to what they can expect if ever put in my situation.

GENE Z. MILIC, M.D.  
Grenada, MS

Gentlemen:

After my malpractice insurance premiums were increased drastically through St. Paul, I started to look for a new carrier for coverage. It was at this time that I discovered Medical Assurance Co. of Mississippi.

Before I made my decision to purchase coverage with your company, I talked to several responsible people in detail concerning your malpractice coverage and fees. I thought at that time that your explanation was complete and all of my questions were answered to my satisfaction. After these discus-

sions, I made my decision to go for this coverage and was accepted by you.

I think I have practiced good medicine and have had no accidents or problems. There have been no claims against me for malpractice.

At the time of our discussions, I was told that I could purchase tail-end coverage, which would be 10% of my yearly fees. I accepted this as such, only to find out now when I am in the process of closing my practice, that the 10% charge is not for malpractice insurance, but for the clinic, etc.

I feel that I have been taken and greatly misled by false promises. I resent this very much and think it is unfair that the Association deals with its physicians in this manner. I am sure I am not mistaken and know what I am talking about.

I thought I was dealing with people who would not lie to me or mislead me in any way. I was happy with the explanation and answers I received from you personally. Now, I am to find out how misled I was.

I cannot, at this time, afford to pay \$18,000 for tail-end coverage. I may not be able to do anything about this matter, but I would like for you to know that I do resent this action. I think it is very unfair and has nothing to do with a good practice.

GENE Z. MILIC, M.D.

Dear Dr. Milic:

This will acknowledge receipt of your letter of June 4, 1985.

I can assure you that no one in this office told you two years ago that you would be able to purchase a Reporting Endorsement or "tail-end" coverage for 10% of your annual premium. You have not been taken, you were not misled by false promises, and you most certainly are mistaken. You either misunderstood at the time, or your memory is not totally accurate. A company that is as selective as Medical Assurance Company of Mississippi relative to which physicians we will insure does not have to lie or mislead physicians into applying for coverage.

If you will recall, you received an application packet when you decided to switch your coverage from St. Paul. In that packet along with an application form and other information brochures about the company, were schedules of rates, including Reporting Endorsement premiums. If you had asked anyone in this office about the cost of "tail-end" coverage, we would have referred to that particular schedule. It would make no sense at all to tell you that the cost of a Reporting Endorsement would be 10% of your annual premium when we have already pro-

vided you with a schedule reflecting that the premium is approximately 180%!

As you indicate in your aforesaid letter, your St. Paul premium increased drastically. By my calculation, you saved approximately \$4200 the first year you were insured by us, and you saved another \$5800 the following year. If you still feel that you were "taken," I respectfully suggest that you contact your local St. Paul agent and see what St. Paul would charge for a Reporting Endorsement if you had stayed with them.

I am sorry that you feel that you have been treated unfairly, but the situation in which you now find yourself is completely of your own making.

MIKE D. HOUPP  
General Manager  
Medical Assurance Co. of Miss.

## Medico-Legal Brief

### Staff Privileges Exempt From Antitrust Statutes

A hospital staff's recommendation that an orthopedic surgeon's privileges be revoked was exempt from federal antitrust laws, a federal appellate court for Illinois ruled.

The surgeon was a board-certified orthopedic surgeon who specialized in the treatment of spinal disorders. A special ad hoc committee comprised of selected members of the medical staff of the hospital conducted an audit of back surgery procedures performed at the hospital. The results of that audit raised questions concerning the appropriateness of the operations performed by the surgeon. It recommended to the medical staff that his lumbar laminectomy and spinal fusion cases be monitored and that any case without a positive radiological finding be subjected to a mandatory second opinion.

Two years later, in August 1980, the committee retained an independent company engaged in the business of performing medical audits to conduct a further audit on the surgeon's lumbar and cervical procedures. Based on those findings, the special committee recommended to the medical staff that the surgeon's clinical privileges be revoked. The recommendation was adopted but suspended pending a hearing as required by the hospital's Fair Hearing Plan.

After the hearing, the Board of Directors issued a final decision revoking the surgeon's clinical privileges. He filed suit against the independent audit company, the hospital, the Board of Directors, and

several individuals. His lawsuit alleged that they had conspired to restrain trade and monopolize the market for orthopedic and neurological spinal surgery in the area in violation of federal antitrust law. A federal trial court dismissed the action and the surgeon appealed.

Affirming the decision, the federal appellate court said that the hospital staff's actions in revoking his privileges were exempt from federal antitrust laws under the doctrine of state action. The hospital staff's review of the surgeon's medical treatments and the diagnostic and surgical procedures was mandated by state law. It provided for the state's active supervision of the medical peer review process and in return granted the reviewing physicians with immunity from civil liability for good faith determinations. The statutory scheme provided the physician with due process safeguards of an evidentiary hearing prior to disclosure of the findings and for a review by the state court system.

The comprehensive state statutory scheme mandating and supervising the medical peer review process enabled the hospital to fulfill its duty in exercising due care in selecting and maintaining qualified and competent medical staff. As a result, it assured state citizens that medical practices and procedures within the state were being closely monitored and reviewed. Since the hospital's actions were taken under a state statutory scheme that was actively supervised by the state, its actions were exempt from federal antitrust laws. — *Marrese v. Interqual, Inc.*, 748 F.2d 373 (C.A.7, Ill., Nov. 6, 1984; as amended, Nov. 7, 1984)



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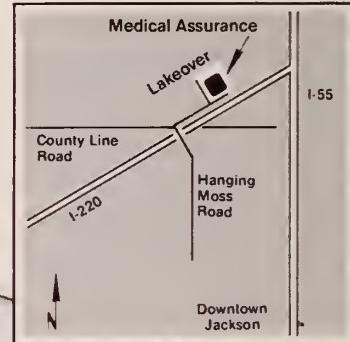
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## MEDICAL ORGANIZATION

### MSMA Board Holds Summer Meeting in McComb

MSMA's Board of Trustees met in McComb on August 8-9, and handled an extensive agenda in addition to meeting with members of the South Central Medical Society and their spouses.

Among many major actions taken by the Board were decisions to retain legal counsel to advise on requirements for an MSMA-sponsored IPA/HMO, to organize a "grassroots" tort reform effort, and to implement a statewide public information campaign this fall.

Planning for an MSMA-sponsored IPA/HMO follows recommendations of the Board's Committee on Alternative Delivery Systems which has studied such systems for the past year. The Committee was formed following action by the House of Delegates at the 1984 Annual Session which directed the Board to study and lay necessary groundwork to provide a role for the association in the development of alternative delivery systems in those areas of the state where the membership was desirous of participating in such systems. An IPA/HMO recently formed by the Georgia Medical Association will serve as a model for the Committee on Alternative Delivery Systems' further study and the committee will be expanded to include a representative from each component medical society of the association. The Board urged the committee to consult with legal counsel and have a final report for the Board's review and action within 30 days.

Tort reform to alleviate the growing malpractice crisis in the state will be initiated through a "grassroots" membership involvement campaign this fall leading to gaining support of the 1986 Mississippi Legislature for such reform. The Board expressed its total commitment to this campaign and directed that initial information about the campaign and a call for involvement be sent to the membership in August.

An MSMA-sponsored public information campaign scheduled for this fall will feature information about changes occurring in the health care field as well as advice on staying healthy. MSMA members will be urged to assist in educating the public about changes in technology, health care delivery, and payment, all of which are impacting on the physician-patient relationship. Other public service type

announcements to be utilized in the campaign will stress individual responsibility for one's health.

In other action the Board approved plans to co-sponsor a program on alternative health care delivery systems with the American Society of Internal Medicine this fall. The program will be conducted in Jackson and publicized to the membership.

The Board also reviewed the current status of the MSMA building program and retained legal counsel to proceed with syndication of the building in accordance with previously approved policy.

In accordance with policy adopted by the House of Delegates at the 1985 Annual Session, the Board approved a plan to implement unified membership to include an installment option for 1986 unified membership dues.

The Board also acted to name the annual MSMA award to a UMC senior medical student the Dr. Virginia S. Tolbert Award. The award is given for outstanding leadership and scholarship.

Officers and Board of Trustees members attending the August 8-9 meeting in McComb included: Ralph L. Brock, M.D., president, McComb; W. Joseph Burnett, M.D., president-elect, Oxford; Ellis M. Moffitt, M.D., immediate past president, Jackson; Carl G. Evers, M.D., speaker of the House, Jackson; James C. Waites, M.D., vice speaker of the House, Laurel; W. Lamar Weems, M.D., delegate to AMA, Jackson; Roy D. Duncan, M.D., chairman, Pascagoula; David R. Steckler, M.D., vice chairman, Natchez; William B. Hunt, M.D., secretary, Grenada; J. Ed Hill, M.D., Hollandale; Lee H. Rogers, M.D., Tupelo; C. G. Sutherland, M.D., Jackson; Martin H. McMullan, M.D., Jackson; George L. Arrington, M.D., Meridian and David M. Owen, M.D., Hattiesburg.

JOIN TODAY



## **Dr. Eugene Wood Installed As President of MAFP**

Dr. Eugene Wood of Jackson was installed as the 37th president of the Mississippi Academy of Family Physicians at its recent meeting in Biloxi. He succeeds Dr. James C. Waites of Laurel.

Dr. Ralph Brock, a past president of the MAFP and current president of the MSMA, conducted installation ceremonies for other officers, including Dr. Leonard H. Brandon of Starkville, president-elect; Dr. Irvin Cronin of Jackson, vice president; and Dr. Elmo Gabbert of Meadville, secretary-treasurer.

Assuming their posts as directors were Drs. Dayton Whites of Lucedale, Jerry Iles of Natchez, James C. Graham of Enterprise, Matthew Page of Greenville, and Robert Townes of Grenada. Dr. J. Edward Hill of Hollandale was re-elected as delegate to the

American Academy of Family Physicians with Dr. Eugene Wood as alternate.

Dr. C. D. Taylor received the John B. Howell Memorial Award, presented in recognition of outstanding contributions to family medicine in Mississippi. Other award winners were Dr. Mary Ann Frank, who was presented the Bevill Award as outstanding resident in family medicine, and Dr. Lee Giffen, who received the Ciba-Geigy Award to an outstanding family practice resident physician.

**CORRECTION:** In the July issue, Dr. C. D. Taylor was incorrectly identified as Dr. C. P. Crenshaw. Dr. Taylor presented the James Grant Thompson Memorial Past President's Pin to Dr. Ellis Moffitt during the MSMA's 117th Annual Session.



*Members of the MSMA Board of Trustees enjoyed an afternoon of golf when the Board's two-day meeting in McComb recessed. Pictured above, from left, are: Dr. George Arrington, Jr., of Meridian; Dr. Martin McMullan of Jackson; Dr. James C. Waites of Laurel, MSMA vice speaker of the House; and Dr. Bernard Hunt of Grenada.*

## **Dennis S. O'Leary, M.D. Named JCAH President**

Dennis S. O'Leary, M.D., dean of Clinical Affairs at George Washington University, has been named president of the Joint Commission on Accreditation of Hospitals effective April 1986. He succeeds John E. Affeldt, M.D., who has served as president since 1977 and who is retiring.

Dr. O'Leary, who is also acting medical director of the University Hospital and professor of medicine at the University, became nationally known in 1981 when he served as spokesperson for the University Hospital following the attempted assassination of President Reagan.

Dr. O'Leary received resolutions of commendation from both the American Medical Association's House of Delegates and the American Hospital Association for his day by day handling of information on the president's condition.

Dr. O'Leary has chaired the University Hospital's Medical Staff Executive Committee for more than a decade and has chaired and served on the Faculty Group Practice Executive Committee as well.

He is a former president of the Medical Society of the District of Columbia, and one of the participating founders of the National Capital Area Health Care Coalition.

As vice president of the University's Health Maintenance Organization, Dr. O'Leary led the negotiating team which created a joint venture relationship among the George Washington University, George Washington University Health Plan, and American Medical International. Dr. O'Leary did his undergraduate work at Harvard and completed his medical studies at Cornell University in 1964. Dr. O'Leary feels that the next decade will bring constant change to health care organizations. "These changes will include more health care systems which are set up and oriented toward the growing numbers and types of organized health care settings," he said. He also predicts that the mix of patients in hospitals along with the sites for patient care will change. "This will put a different set of demands on the Joint Commission," O'Leary said. "More organizations will undoubtedly be considering the voluntary accreditation process. Standards and processes will require frequent review to ensure that they continue to be relevant and useful."

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## **Dr. William Coltharp Receives Caldwell Award**

Medical Assurance Company of Mississippi (MACM) presented its third annual Robert S. Caldwell Memorial Award to Dr. William H. Coltharp of New Albany. He received the award at MACM's annual meeting, held in conjunction with the Mississippi State Medical Association's 117th Annual Session in Biloxi.

The award recognizes excellence in medical practice, patient relations, and documentation of patient care, and is presented in the interest of furthering medical-legal education in Mississippi. It is named in memory of Dr. Robert S. Caldwell, a Tupelo general surgeon, who was president-elect of the Mississippi State Medical Association at the time of his death. Dr. Caldwell was instrumental in gaining support for and participation in medical assurance during the formative years of the company, then known as Mississippi Medical Fraternal and Educational Society.

Dr. Coltharp, who recently completed his fourth year in residency in general surgery, has begun a

thoracic and cardiovascular surgery fellowship at the University Medical Center in Jackson. A graduate of Mississippi State University, Dr. Coltharp received his M.D. degree from the University of Mississippi School of Medicine in 1981.

## **UMC Announces Faculty Appointments**

Six have been named to the School of Medicine faculty at the University of Mississippi Medical Center.

The appointments were announced by Dr. Norman C. Nelson, vice chancellor for health affairs and medical school dean, following approval of the Board of Trustees of State Institutions of Higher Learning.

Appointed were Dr. Arthur C. Ellison, instructor in medicine (research); Melissa Elliot-Griffith, instructor in psychiatry and human behavior; Dr. Twila Massingale, instructor in pediatrics (psychology); Dr. Jimmy D. Miller, assistant professor of neurosurgery; Dr. Linda I. Ray, instructor in pediatrics; and Dr. Russell S. Tarver, assistant professor of medicine.

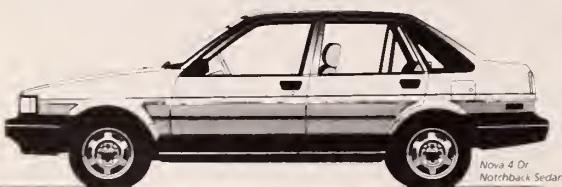
Dr. Ellison, a 1959 graduate of the University of South Carolina, received the M.S. in 1962 from the Medical College of Georgia and the Ph.D. in 1972 from Ole Miss. He earned a master's degree in public health in 1983 at the Tulane School of Public Health. A former director of pharmacology for the Alcon Corporation in Fort Worth, Texas, from 1972-1974, he was assistant professor of ophthalmology and pharmacology at the University of Texas Medical School and director of ocular research at Veterans Administration Hospital in Austin, Texas. He was associate professor of clinical pharmacology at King Saud University College of Pharmacy from 1979-1982.

Ms. Griffith earned the B.S.N. in 1976 at Mississippi College and the M.S.N. in 1985 at Boston University Graduate School of Nursing. She was a staff nurse at Metropolitan General Hospital in Nashville, Tennessee, and a visiting nurse for the Home Health Agency in Jackson. She was a community health nurse for Operation Shoestring in Jackson from 1977-1979, and for the Cambridge Visiting Nurses Association in Cambridge, Massachusetts, in 1983. She also served as a preceptor at Boston University in 1984.

Dr. Massingale is a 1979 graduate of Mississippi College. She received the M.A. in 1983 and the Ph.D. in 1985 from the University of Southern Mis-

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sissippi. A former dietary supervisor at Riley Memorial Hospital in Meridian, she was a research assistant in pediatrics from 1983-1985 at the Medical Center prior to her faculty appointment.

Dr. Miller earned the B.S. in 1975 at Ole Miss and the M.D. degree in 1979 at the Medical Center. He did his internship and residencies in surgery and neurosurgery at UMC in 1980 and 1981.

Dr. Ray received the B.S. in 1978 at Mississippi State University and earned the M.D. degree in 1982 at the Medical Center. She completed a residency in pediatrics at UMC prior to her faculty appointment.

Dr. Tarver attended Millsaps College from 1964-1967 and earned the bachelor's degree in business administration in 1968 at Ole Miss. He earned the M.D. in 1976 at the Medical Center, where he completed an internship and residency in medicine. He was in private practice since 1980 in Greenville before coming to the Medical Center. He served in the U. S. Army from 1968-1970.

## POSTGRADUATE CALENDAR

October 11-12

FOURTH SOUTHERN BIOMEDICAL ENGINEERING CONFERENCE

Holiday Inn Downtown, Jackson

November 6

SECOND ANNUAL HINDSCARE MEDICAL UPDATE  
Hinds General Hospital, Jackson

November 22-23

PEDIATRIC ANNUAL MEETING  
University Medical Center, Jackson

December 4-6

SEVENTH ANNUAL PERINATAL POSTGRADUATE COURSE  
Holiday Inn Downtown, Jackson

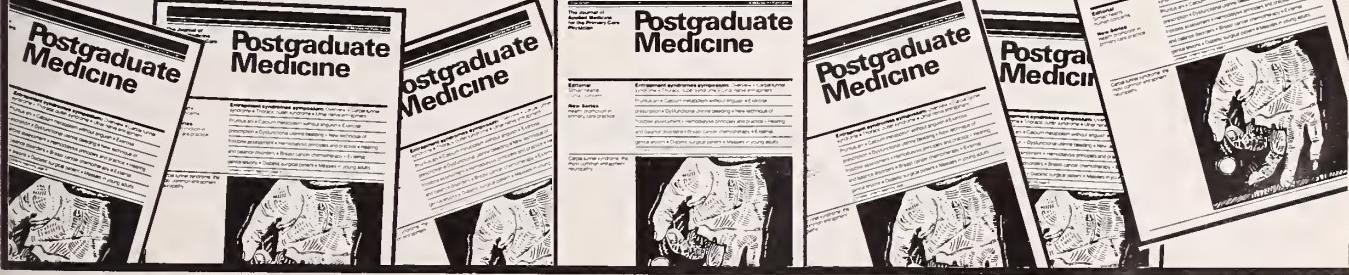
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All copy must be double spaced, including legends, footnotes, and references. Generous margins at the top, bottom, and on both sides of the page should be allowed. Each page after the title page should be consecutively numbered and carry a running head identifying the paper and author.

Titles should be short, specific, and clear. Ordinarily, a title should not exceed 80 characters, including punctuation.

**References should be limited to a maximum of 10. If there are more than 10, the references will be omitted and a notation made to write the author for a complete list.** Textbooks, personal communications, and unpublished data may not be cited as references. References must include names of authors, complete title cited, name of journal or book spelled out or abbreviated according to the *Index Medicus*, volume number, first and last page numbers, month, date (if published more frequently than monthly), and year. References should be arranged according to order listed in the text and must be numbered consecutively.

Manuscripts accepted for publication are subject to copy editing. Authors will receive galley proof prior to publication. Galley proof is only for correction of errors, and text changes

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Illustrations must be numbered and cited in the text. Legends, not exceeding 40 words and preferably shorter, must accompany each illustration, typed double spaced on separate sheets. The following information should appear on a gummed label affixed to the back of each illustration: Figure number, manuscript title, author's name, and arrow indicating top of the illustration.

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A thesis summary of 75 to 100 words must accompany each manuscript.

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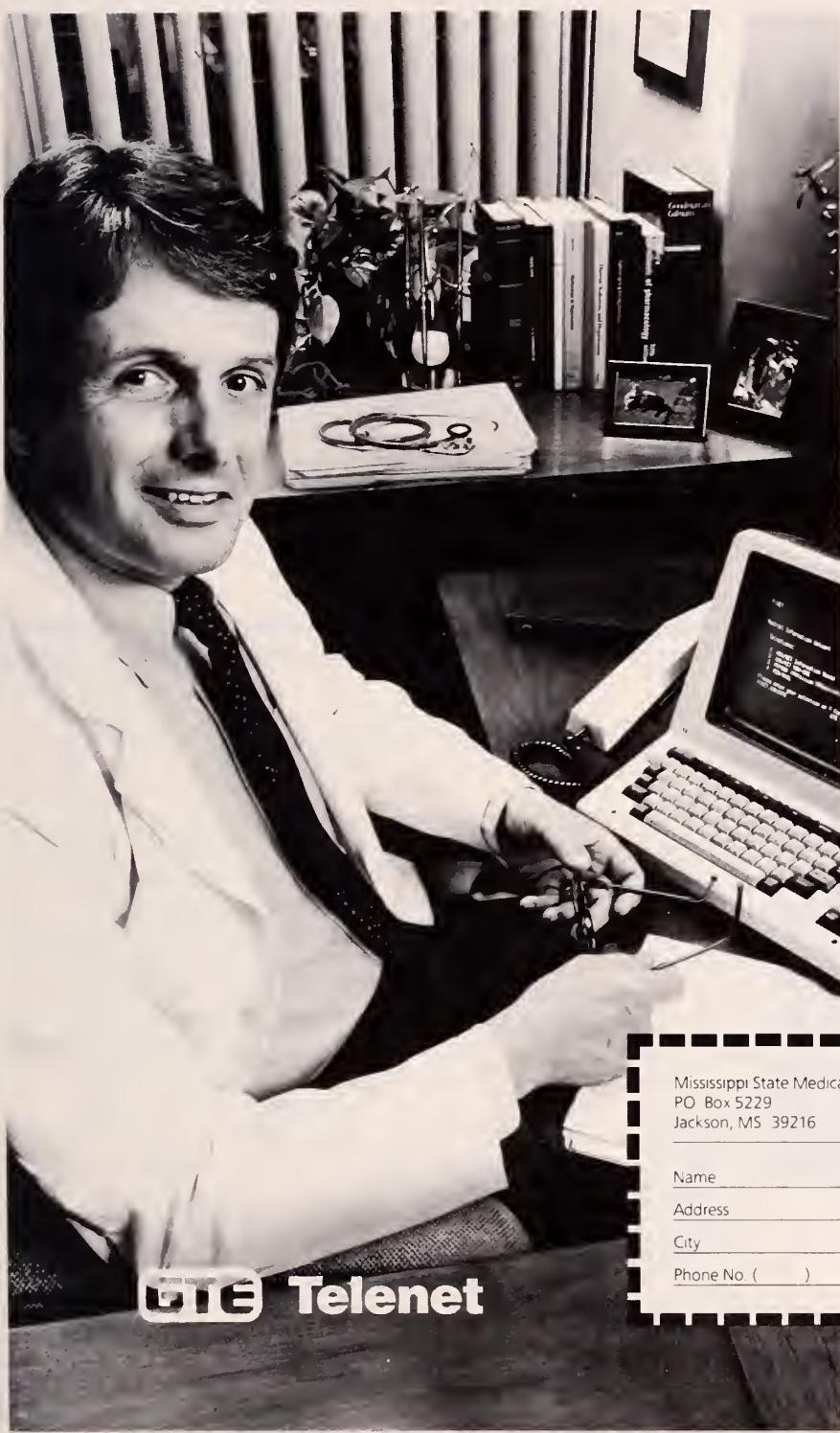
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## PERSONALS

JAMES ACHORD of UMC was guest speaker at the University of Louisville School of Medicine in Louisville, Kentucky.

ORLANDO ANDY of UMC presented a paper at a meeting of the Southern EEG Society in St. Louis, Missouri.

WILL K. AUSTIN of McComb has been installed as president of the McComb Rotary Club.

W. O. BARNETT of Jackson spoke at a meeting of The Ostomy Association of Jackson.

G. CHRISTOPHER BALL has associated with Ball, Pittman, Lewis, Banks and Beckman Clinic for Women, 1820 Hospital Drive in Jackson, for the practice of obstetrics and gynecology.

D. L. BOLTON and C. R. SEARLE of Picayune announce the association of EDDIE ULMER for the practice of family medicine.

ARTHUR BROWN announces the opening of his office for the practice of family medicine at 401 South Chestnut Street in Aberdeen.

CHARLES DAVID CESARE has associated with Woman's Clinic of Clarksdale for the practice of obstetrics and gynecology.

MARY ANN COWART of Meridian presented a program on diagnostic procedures during a meeting of the East Central Council of the Mississippi Medical Record Association.

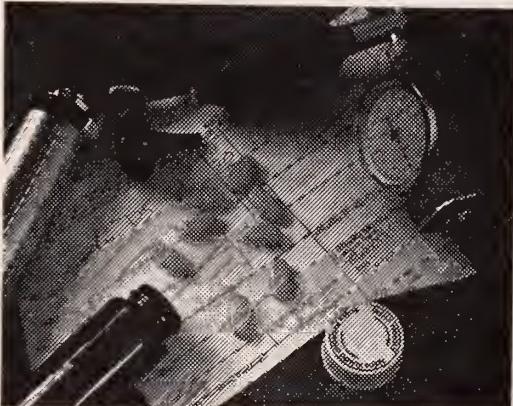
DAVID CRAWFORD of UMC was a site visitor for the Southwest Oncology Group at the University of Kansas Cancer Center in Kansas City, Missouri.

JACK D. DANIEL, RICHARD A. JOHNSON and RANDOLPH J. ROSS (formerly Hattiesburg Urology Clinic) announce their merger with Hattiesburg Clinic, P.A., 415 South 28th Avenue.

EDGAR DRAPER of UMC recently spoke to chaplains and staff at St. Elizabeth Hospital in Washington, DC and was a consultant at the Veterans Administration Medical Center in Biloxi.

J. B. FRANKLIN announces the opening of his prac-

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tice of internal medicine in association with HENRY E. WOOD, JR., 405 Security Square in Gulfport.

DAVID M. GILDER has associated with The Street Clinic of Vicksburg for the practice of family medicine.

ARMIN HAERER of UMC attended a meeting of the Cooperative Study of Extracranial and Intracranial Bypass Group in Hamilton, Ontario, Canada in July.

JAMES E. HALL of Brookhaven was elected president of the Mississippi EENT Association.

JAMES R. HALTOM has associated with Mississippi Allergy Clinic at Gateway Plaza in Biloxi.

MARY E. HAWKINS of Jackson announces the association of VIRGINIA ANNE JONES for the practice of obstetrics and gynecology at 1037 North Flowood Drive.

REED B. HOGAN has associated with Gastrointestinal Associates, P.A., 500-B East Woodrow Wilson in Jackson.

WILLIAM C. HOPPER, JR., of Gulfport served as a consultant in pediatric orthopaedics at the University of Ecuador medical system in Quito, Ecuador, South America recently.

ROBERT B. IRELAND of Clinton announces the association of ROBERT B. IRELAND, JR. for the practice of family medicine.

MICHAEL E. JABALEY of Jackson recently was visiting professor in plastic surgery at Southern Illinois University in Springfield, Illinois.

JOHN JACKSON of UMC made a presentation at a July meeting of the Southern Genetics Group in Natchez.

THOMAS E. JOINER has associated with South Central Medical Clinic, 866 Medical Plaza in Jackson, for the practice of family medicine.

JULIAN F. JONES of Olive Branch recently received Paul Harris Fellow award by the Olive Branch Rotary Club.

JACK H. KAHLSTORF of Tupelo recently participated in Grand Rounds of the department of obstetrics and gynecology at University Medical Center in Jackson.

WILLIAM CARL KELLUM, JR. has associated with the Kellum Clinic, 500 North Gloster Street in Tupelo, for the practice of gastroenterology and internal medicine.

JOHN E. KILEY, retiring as professor of medicine at

UMC, received a citation in recognition of his service to the medical school at commencement exercises recently.

LYNN LEATHERWOOD announces the opening of his practice of internal medicine at Norwood Village Shopping Center in Gulfport.

CHARLES KENNETH LIPPINCOTT announces the opening of his office for the practice of psychiatry at 609 Brunson Drive in Tupelo.

LAWRENCE W. LONG of Jackson announces his retirement from the practice of surgery.

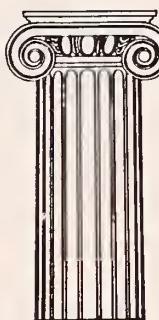
JAMES MAHER of UMC lectured at the American College of Surgeons Cancer Management Course in Kansas City, Missouri.

DON E. MARASCALCO announces the opening of his office for the practice of ophthalmology at 1301 20th Avenue in Meridian.

RAMON McGEHEE of UMC lectured at the annual assembly of the Louisiana Academy of Faculty Physicians in New Orleans.

FRANK J. MORGAN, JR. of Jackson was reelected to a three-year term on the FLEX board at the annual

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## **PERSONALS/Continued**

meeting of the Federation of State Medical Boards held recently in Atlanta.

JOHN MORRISON of UMC was guest speaker at the Florida Nurses Association in Miami.

ANN MYERS announces the opening of her office for the practice of rheumatology and arthritis at 348 Crossgates Boulevard, Brandon.

NORMAN NELSON was guest speaker at a meeting of the Prairie Medical Society in Columbus.

CHARLES O'MARA of Jackson was inducted into the International Society for Cardiovascular Surgery at its annual meeting in Baltimore, Maryland.

WILLIAM L. PACE and E. LINWOOD SHANNON of Hattiesburg announce the association of KIM A. HARDEY for the practice of obstetrics and gynecology.

JUDITH G. PARKER of Brandon announces the association of DENNIS W. ROWLEN for the practice of pediatrics.

RICHARD C. RANDOLPH announces the opening of his office for the practice of family medicine at Crossgates Plaza in Brandon.

JAMES STEPHEN RAWSON announces the opening of his office for the practice of gastroenterology at 2520 5th Street North in Columbus.

MICHEL RIVLIN of UMC presented papers at the Royal College of Surgeons of Edinburgh in Deauville, France, and at the American and European Views on Critical Care in Cannes, France.

JOHN P. SCHILLING has associated with Gamble Brothers and Archer Clinic in Greenville for the practice of obstetrics and gynecology.

CLIFFORD A. SEYLER of Pascagoula received an award from the Mississippi Federation and General Federation of Women's Clubs for his service to young people through his work with CANDY (Citizens Against Needless Death in Youth).

JOHN R. SHELL of Vicksburg recently was elected president of the Board of Medical Licensure. Other officers are GILBERT R. MASON of Biloxi, vice president, and W. W. WALLEY of Waynesboro, secretary.

GORDON W. SLUIS of Vicksburg was guest speaker on behalf of the American Heart Association at the Mississippi College Preschool Teachers Workshop in Clinton.

DONALD K. SMITH announces the opening of his practice of general medicine at 119 Robertson Drive in Okolona.

DAVID F. SONEGO announces the opening of his practice of adult and adolescent psychiatry at 422 Security Square in Gulfport.

BEVAN STEADMAN of UMC was consultant on educational programs for the University of Nevada School of Medicine in Reno.

EDWIN P. SUDDUTH of Jackson announces the association of TIMOTHY M. WRIGHT for the practice of internal medicine at 971 Lakeland Drive, Suite 425.

C. D. TAYLOR of Pass Christian recently was named Family Physician of the Year by the Mississippi Academy of Family Physicians.

PLEZ TINSLEY, JR. of Meridian was guest speaker at the World Congress of Otolaryngology and at the American Academy of Facial Plastic and Reconstructive Surgery meetings in Miami, Florida.

LAMAR WEEMS of Jackson was installed as president of the National Kidney Foundation of Mississippi at the group's annual meeting recently in Jackson.

DAYTON E. WHITES, THOMAS R. SHAW, and RAYMOND E. TIPTON, SR. of Lucedale announce the association of JOHN H. BEARRY for the general practice of medicine.

GEORGE E. WILKERSON of Hattiesburg announces the association of DAVE ROBERTS for the practice of neurology at 710 South 28th Avenue.

HOMER H. WILLIAMS announces the opening of his office for the practice of family medicine at 601 North West Avenue in Durant.

JAMES P. WILSON has associated with JOHN D. McEACHIN, WILLIAM B. SIMMONS and V. DAVID SAVELL, JR. for the practice of general pediatrics, adolescent medicine and neonatology at 2115 14th Street in Meridian.

RONALD E. WOODALL announces the opening of his practice of internal medicine and cardiovascular disease at Koskan and Koskan Medical Complex in Bay St. Louis.

## NEW MEMBERS

BOYER, R. MICHAEL, Gulfport. Born Pontotoc, MI, Jan. 27, 1953; D.O., Chicago College of Osteopathic Medicine, Chicago, IL, 1978; interned Pontiac Osteopathic Hospital, Pontiac, MI, one year; anesthesiology residency, Botsford General Hospital, Farmington Hills, MI, 1982-84; elected by Coast Counties Medical Society.

CHILDERS, JAMES, Pass Christian. Born Regina, KY, Aug. 31, 1924; M.D., University of Louisville School of Medicine, Louisville, KY, 1954; interned Louisville General Hospital and St. Joseph Infirmary, Louisville, one year; general surgery residency one year, St. Joseph Infirmary, Louisville, and ob-gyn residency 1956-59; elected by Coast Counties Medical Society.

DOWELL, WILLIAM WADE, Indianola. Born Greenville, MS, Aug. 2, 1956; M.D., University of Mississippi School of Medicine, Jackson 1982; interned and family practice residency, University Medical Center, Jackson, 1982-85; elected by Delta Medical Society.

HOTCHKISS, ROBERT LEE, Gulfport. Born Wichita, KS, July 4, 1945; M.D., University of Arkansas School of Medicine, Little Rock, 1970; interned Hillcrest Medical Center, Tulsa, OK, one year; psychiatry residency, University of Arkansas, Little Rock, 1974-75; elected by Coast Counties Medical Society.

LEATHERWOOD, LYNN EARL, Long Beach. Born Birmingham, AL, April 18, 1954; M.D., University of South Alabama College of Medicine, Mobile, 1980; interned and internal medicine residency, University of South Alabama Medical Center, Mobile, 1980-85; elected by Coast Counties Medical Society.

MARASCALCO, DON EDWARD, Meridian. Born New Orleans, Nov. 16, 1949; M.D., University of Mississippi School of Medicine, Jackson, 1981; interned and ophthalmology residency, University Medical Center, Jackson, MS, 1981-85; elected by East Mississippi Medical Society.

MOORE, JOE KEITH, Oxford. Born Meridian, MS June 12, 1954; M.D., University of Mississippi School of Medicine, Jackson, 1979; interned and orthopedic surgery, University Medical Center,

Jackson, MS, 1979-84; elected by North Mississippi Medical Society.

NORSWORTHY, THOMAS PHILIP, Indianola. Born Laurel, MS, Nov. 11, 1956; M.D., University of Mississippi School of Medicine, Jackson, 1982; interned and family practice residency University Medical Center, Jackson, MS, 1982-85; elected by Delta Medical Society.

RAWSON, JAMES STEPHEN, Columbus. Born Starkville, MS, Feb. 14, 1954; M.D., University of Mississippi School of Medicine, Jackson, 1980; interned, family practice residency and gastroenterology fellowship, University Medical Center, Jackson, MS, 1980-85; elected by Prairie Medical Society.

STENNEDT, JERRY LEON, Columbus. Born Hattiesburg, MS, June 12, 1951; M.D., University of Mississippi School of Medicine, Jackson, 1976; interned and general surgery residency, LSU Medical Center, Shreveport, LA, 1978-83; elected by Prairie Medical Society.

SUCHER, JOHN DAVID, Ocean Springs. Born Rochester, NY, July 20, 1954; M.D., State University of New York at Buffalo School of Medicine, 1980; interned and anesthesiology residency, Wilford Hall USAF Medical Center, San Antonio, TX, 1980-83; elected by Singing River Medical Society.

YAMCHARERN, TWATCHAI, Jackson. Born Thailand, Feb. 3, 1947; M.D., Siriraj Medical School, Mahidol University, Bangkok, Thailand, 1970; interned South Side Hospital, Pittsburgh, PA, one year; general surgery residency, Methodist Hospital, Brooklyn, NY, 1972-76; plastic surgery residency, University Medical Center, Jackson, MS, 1982-84; elected by Central Medical Society.

## DEATHS

SANTANGELO, ANTHONY J., Meridian. Born Gretna, LA, June 30, 1909; M.D., Royal University of Rome, Italy, 1942; interned one year in Rome and one year Charity Hospital, New Orleans, 1945-46; psychiatry residency, University Medical Center, Jackson, MS, 1957-60; died July 4, 1985, age 76.

## **PHYSICIANS NEEDED**

Physicians (especially specialists such as ophthalmologists, pediatricians, orthopedists, neurologists, etc.) interested in performing consultative evaluations (according to Social Security guidelines) should contact the Medical Relations Office, WATS 1-800-962-2330, extensions 2276, 2275, or 2190; Jackson, 922-6811, extensions 2276, 2275, or 2190.

The Mississippi Disability Determination Services now has a program available for medical society meetings and hospital staff meetings. The purpose of this program is to explain how the disability determination process works, its historical background, its basis in legality and its documentation requirements. Any group interested in this presentation should also contact the Medical Relations Office.

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**EMERGENCY PHYSICIANS WANTED.** Part-time and full-time positions. Columbus, MS. Call (601) 328-8385.

**NEEDED IMMEDIATELY.** Family practice physician for a physician clinic in south central Mississippi; good salary and incentives; excellent fringe benefits and working conditions. Inquiries confidential. Reply to Box M, Journal MSMA, P.O. Box 5229, Jackson, MS 39216.

## Physicians Available

**FAMILY PRACTICE.** 1981 UMC graduate, residency trained, board certified; interested in partnership or group experience, primarily in Mississippi. Reply to: 1822 Laurel Street, Jackson, MS 39202 (601) 352-6629.

**ANESTHESIOLOGIST.** B.C. university-trained; 20 years experience; proficient in all types of anesthesia; excellent credentials; Reply 4110-A, Chico Road, Pascagoula, MS 39567.

UMC GRADUATE completing residency in family practice in 1986 seeks small community practice in association with one or more physicians. Information on potential practice locations should be sent to Box A, c/o Journal MSMA, P.O. Box 5229, Jackson, MS 39216.

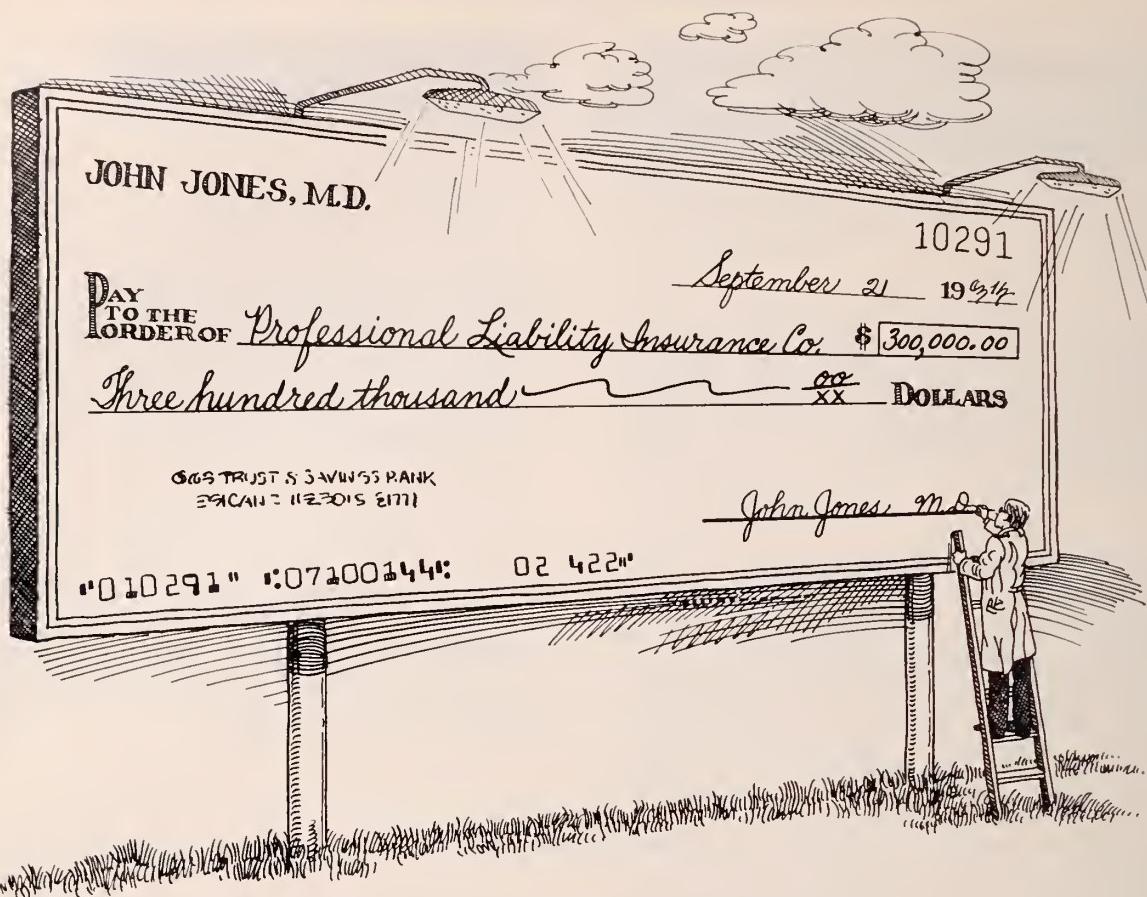
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**OLD BOOKS.** Have retired, have small collection (100+) of miscellaneous medical and surgical books, primarily late 1800s, early 1900s; some very good condition, few others poor, some unique topics. J. R. Mullens, Jr., M.D., 11 Highland Park, West Point, MS 39773; (601) 494-5517.

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promoting state coalitions to deal with the problem, distributing patient information materials and instructing physicians on how to avoid lawsuits.

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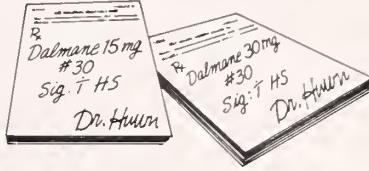
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**Adverse Reactions:** Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase, and paradoxical reactions, e.g. excitement, stimulation and hyperactivity.

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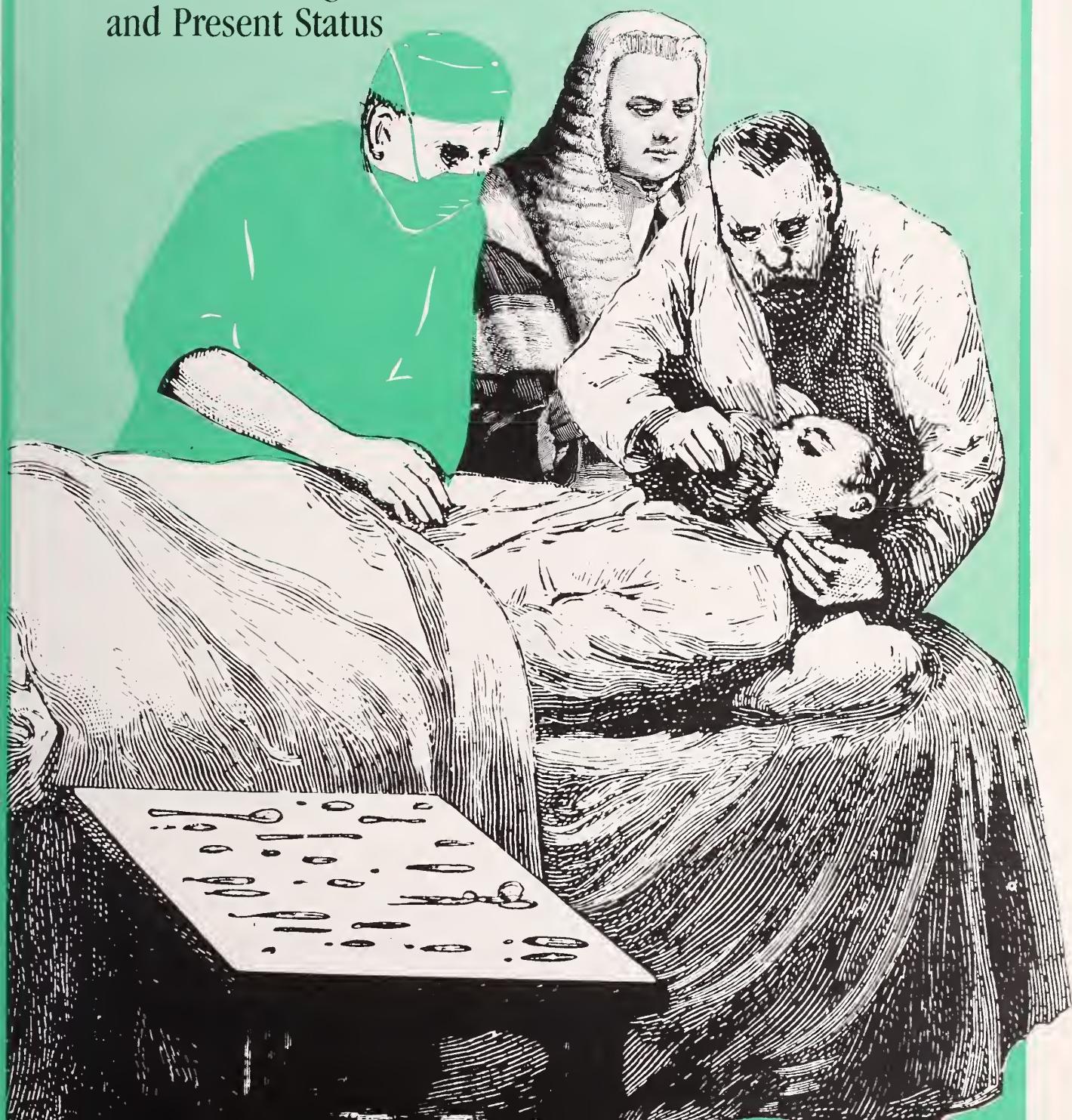
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# JOURNAL of the MISSISSIPPI State Medical Association



OCTOBER 1985, VOLUME XXVI, NUMBER 10

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# NEWSLETTER

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October 1985

Dear Doctor:

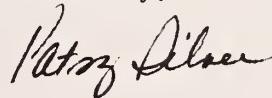
Professional liability premiums increased by 44.8% in the last two years, according to the AMA Task Force on Professional Liability. Even in low risk specialties, premium increases have been dramatic. General practitioners and physicians practicing internal medicine have experienced premium increases of 31.4% and 32.4%, respectively, since 1982.

Premium costs for many highly specialized physicians now approach one-third of their gross incomes, driving some out of practice and forcing others to provide fewer high risk services. Last year, the average ob-gyn paid \$18,800 on premiums. For all physicians, premiums averaged \$8,400.

Lawyers are experiencing a malpractice "crisis" of their own, according to articles in two national law publications which describe 300% rate increases that lawyers' liability carriers are passing on to their insureds. Even with the increase, lawyers' malpractice insurance premiums will average only about \$1,200 per lawyer. "High risk" practices include securities and real estate, patent, and entertainment specialties. Personal injury lawyers are also at high risk. Among reasons for suits are failing to recover in personal injury cases, advising clients not to sue, failing to file suit before the statute of limitations runs out, bad advice on tax shelters, failure to research titles to real estate, and alleged conflicts of interest.

Recent statistics reveal that 680 Mississippians died in motor vehicle accidents in 1984. Some 15,573 injuries were recorded. Significantly, only one percent of those who died were wearing seat belts. Currently, seat belt usage in this state is estimated at about 10%. Usage rates average 15% in most states without a mandatory seat belt law. Physicians are encouraged to continue advising patients to use this simple means of reducing lifestyle risk of death and injury, and to set a good example themselves by "buckling up."

Sincerely,



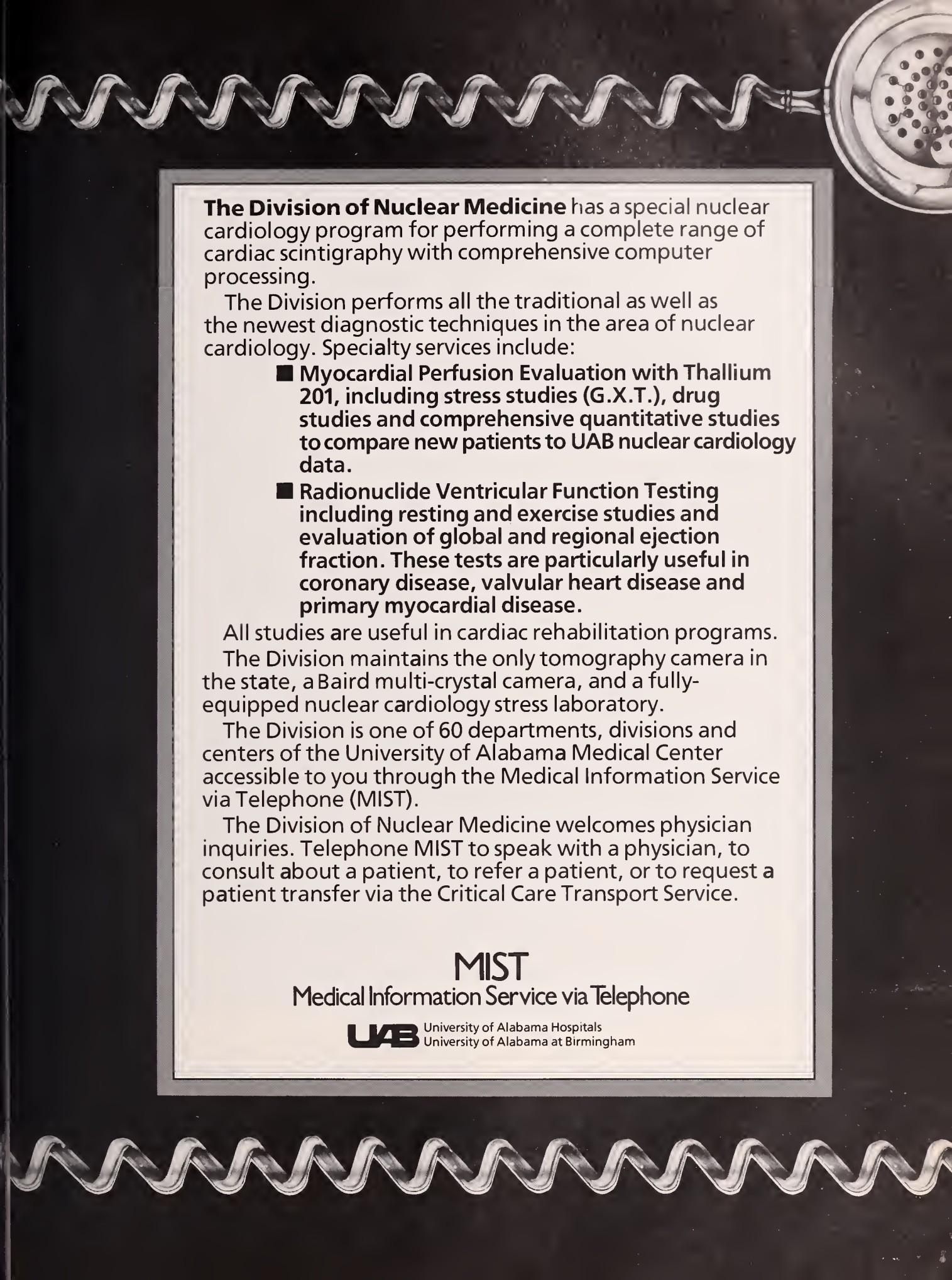
Patsy Silver  
Managing Editor

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**The Division of Nuclear Medicine** has a special nuclear cardiology program for performing a complete range of cardiac scintigraphy with comprehensive computer processing.

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All studies are useful in cardiac rehabilitation programs.

The Division maintains the only tomography camera in the state, a Baird multi-crystal camera, and a fully-equipped nuclear cardiology stress laboratory.

The Division is one of 60 departments, divisions and centers of the University of Alabama Medical Center accessible to you through the Medical Information Service via Telephone (MIST).

The Division of Nuclear Medicine welcomes physician inquiries. Telephone MIST to speak with a physician, to consult about a patient, to refer a patient, or to request a patient transfer via the Critical Care Transport Service.

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# DATELINE

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**School Attendance  
For AIDS Students**

Jackson, MS - At press time the state Board of Education was to meet with state health officials to consider establishing a statewide policy on allowing students with AIDS to attend school. Mississippi currently has one child with AIDS, Michael Felton of Cleveland, a hemophiliac. The ninth-grader has been participating in a home study program, but his doctors say his condition has improved to the point where he could go to school.

---

**HCFA Will Consider  
RVS for Medicare**

Chicago, IL - Harvard University will develop a relative value scale for physicians' services, under a contract with HCFA. The AMA is a subcontractor under the proposal, and will provide advice on the project's overall objectives, directions and research methodology. The AMA also will analyze and tabulate physicians' practice costs. AMA will seek the aid of national medical specialty societies in obtaining data.

---

**Medical Care Prices  
See Slight Increase**

Chicago, IL - Medical care prices will rise at a slightly higher rate than in 1984, predicted the Center for Health Policy Research. The medical care component of the CPI increased 6.9% by July of this year, compared with the 6.7% increase at that time last year. Medical care inflation is outpacing the overall inflation rate of 4.0%. The center attributed the increase to an apparent rise in health insurance premiums.

---

**Consumer Information  
Books Available**

Chicago, IL - AMA's consumer book division reminds that there are two new peer-reviewed volumes physicians may want to recommend to patients. They are the AMA Guide to Better Sleep and the AMA Guide to Health and Well-Being After 50. Both are available at bookstores for \$8.95. The AMA Home Health Library is designed to provide the public with authoritative and easily understandable information.

---

**Third Party Payments  
And MD Incomes**

Chicago, IL - Medicare and Blue Cross/Blue Shield account for 22.7% and 21.2% of physician incomes, respectively, according to the Socio-economic Monitoring System. Others are private insurance (20.5%), Medicaid (9.3%), and HMOs/IPAs (6.1%). Largest percentage of income by specialty was: hospital based specialists - Medicare (30%) and BC/BS (26.9%); surgical - private insurance (24.7%); medical - Medicaid (11.2%) and HMOs/IPAs (7.4%).

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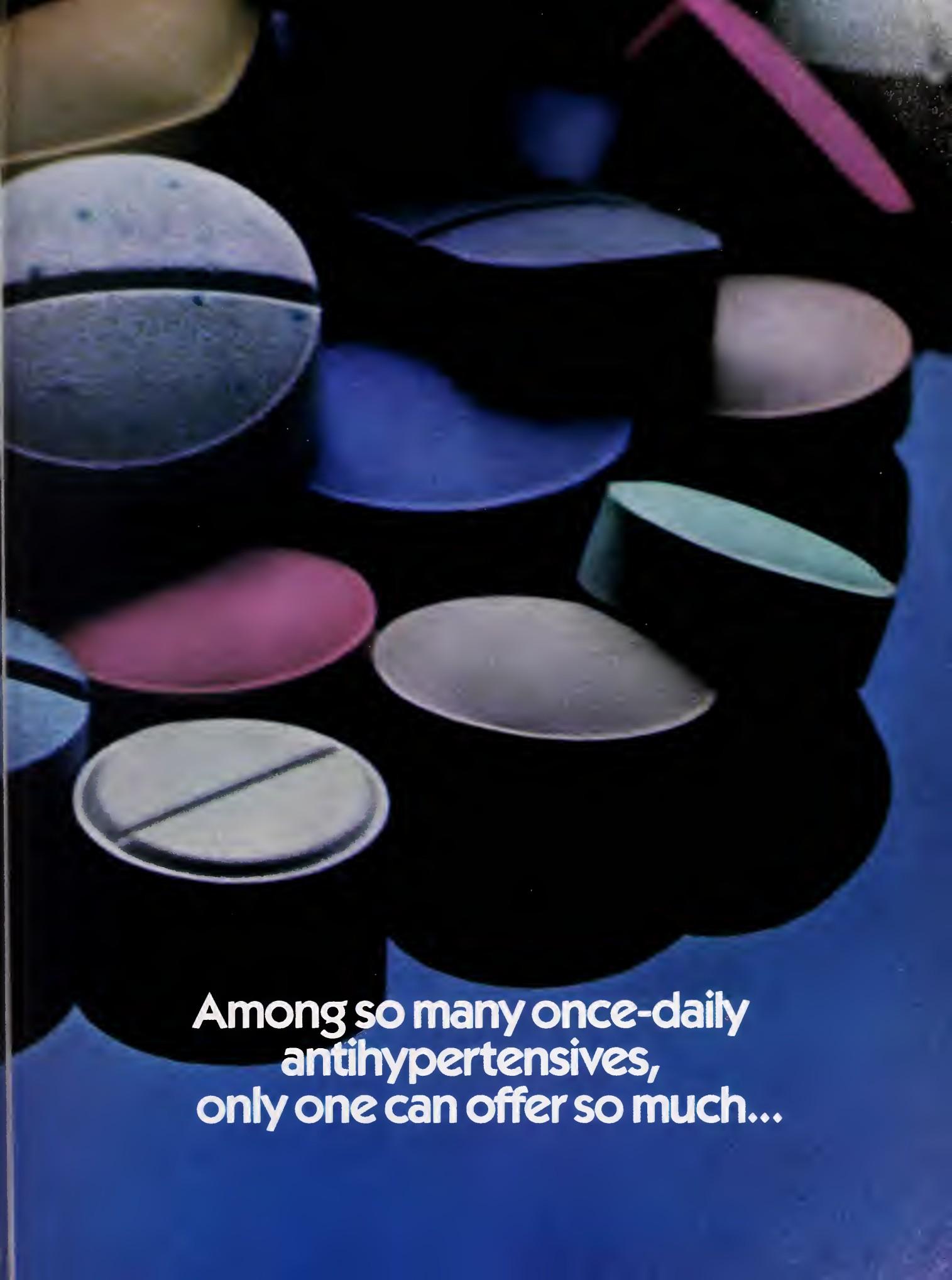
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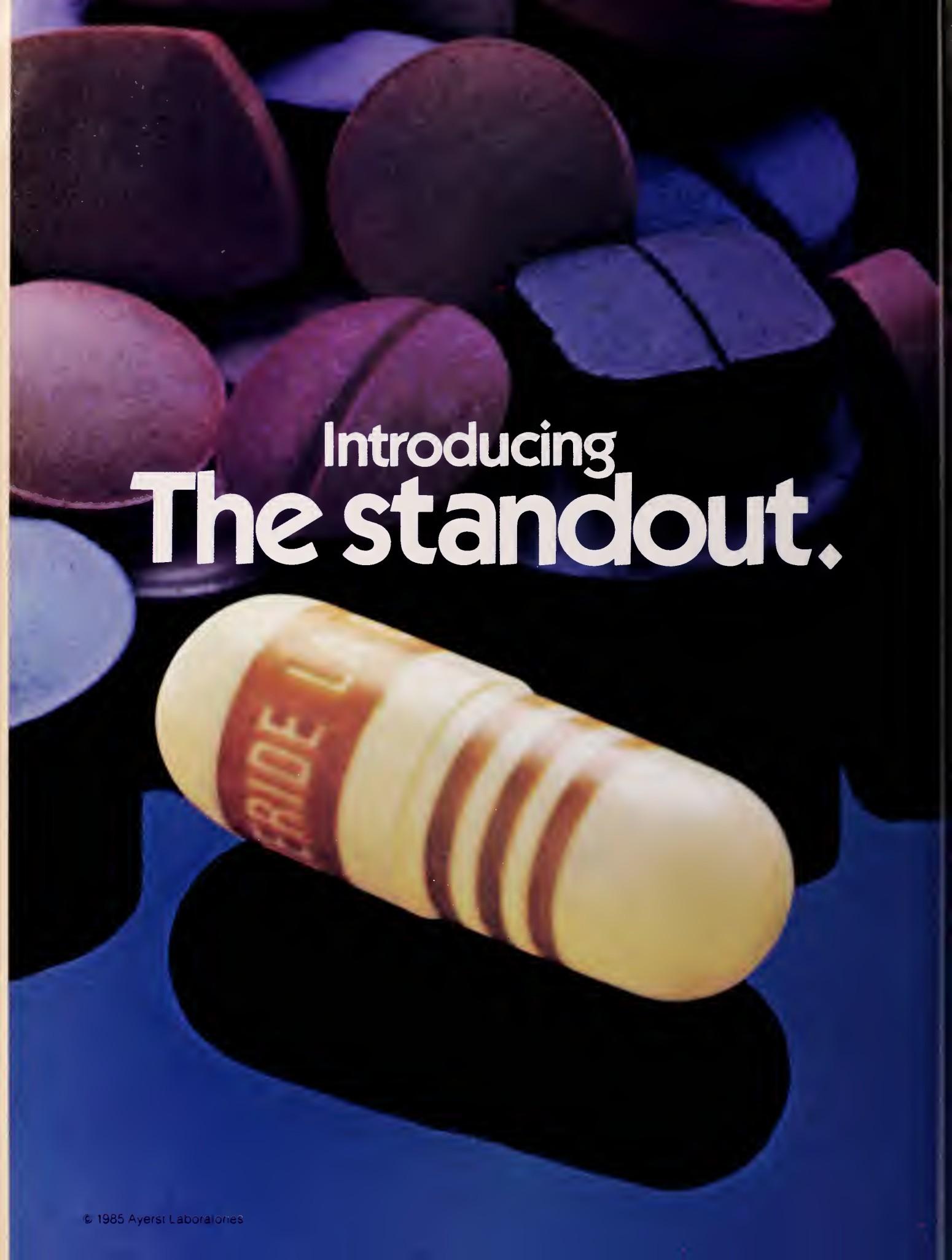
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### **New once-daily INDERIDE® LA**

Each capsule contains propranolol HCl (INDERAL® LA), 80 mg, 120 mg, or 160 mg, and hydrochlorothiazide, 50 mg

### **Convenience without compromise**

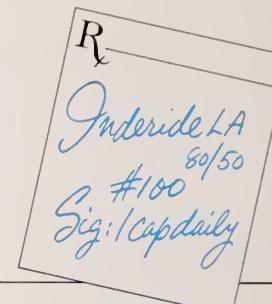


\*The appearance of INDERIDE® LA Capsules is a registered trademark of Ayerst Laboratories.

Please see following page for brief summary of prescribing information.

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**Convenience without compromise**  
**One capsule—Once daily**



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	Hydrochlorothiazide	50 mg
No. 457—Each Inderide® LA 120/50 Capsule contains	Propranolol hydrochloride (INDERAL® LA)	120 mg
	Hydrochlorothiazide	50 mg
No. 459—Each Inderide® LA 160/50 Capsule contains	Propranolol hydrochloride (INDERAL® LA)	160 mg
	Hydrochlorothiazide	50 mg

INDERIDE LA is indicated in the management of hypertension.

This fixed-combination drug is not indicated for initial therapy of hypertension. If the fixed combination represents the dose titrated to the individual patient's needs, therapy with the fixed combination may be more convenient than with the separate components.

#### CONTRAINDICATIONS

##### Propranolol hydrochloride (INDERAL®):

Propranolol is contraindicated in 1) cardiogenic shock; 2) sinus bradycardia and greater than first degree block; 3) bronchial asthma; 4) congestive heart failure (see WARNINGS) unless the talius is secondary to a tachyarrhythmia treatable with propranolol.

##### Hydrochlorothiazide:

Hydrochlorothiazide is contraindicated in patients with anuria or hypersensitivity to this or other sulfonylurea-derived drugs.

#### WARNINGS

##### Propranolol hydrochloride (INDERAL®):

**CARDIAC FAILURE.** Sympathetic stimulation may be a vital component supporting circulatory function in patients with congestive heart failure, and its inhibition by beta blockade may precipitate more severe failure. Although beta blockers should be avoided in overt congestive heart failure, if necessary they can be used with close follow-up in patients with a history of failure who are well compensated, and are receiving digitalis and diuretics. Beta-adrenergic blocking agents do not abolish the inotropic action of digitalis on heart muscle.

**IN PATIENTS WITHOUT A HISTORY OF HEART FAILURE.** continued use of beta blockers can in some cases, lead to cardiac failure. Therefore, at the first sign or symptom of heart failure, the patient should be digitalized and/or treated with diuretics, and the response observed closely or propranolol should be discontinued (gradually if possible).

**IN PATIENTS WITH ANGINA PECTORIS.** there have been reports of exacerbation of angina and, in some cases, myocardial infarction, following abrupt discontinuance of propranolol therapy. Therefore, when discontinuance of propranolol is planned, the dosage should be gradually reduced and the patient carefully monitored. In addition, when propranolol is prescribed for angina pectoris, the patients should be cautioned against interruption or cessation of therapy without the physician's advice. If propranolol therapy is interrupted and exacerbation of angina occurs, it usually is advisable to reinstitute propranolol therapy and take other measures appropriate for the management of unstable angina pectoris. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease who are given propranolol for other indications.

**THYROTOXICOSIS.** Beta blockade may mask certain clinical signs of hyperthyroidism. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. Propranolol does not distort thyroid function tests.

**IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME,** several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case this resulted after an initial dose of 5 mg propranolol.

**MAJOR SURGERY.** The necessity or desirability of withdrawal of beta-blocking therapy prior to major surgery is controversial. It should be noted, however, that the impaired ability of the heart to respond to reflex adrenergic stimuli may augment the risks of general anesthesia and surgical procedures.

**Nonallergic Bronchospasm (eg, chronic bronchitis, emphysema)—PATIENTS WITH BRONCHOSPASTIC DISEASES SHOULD, IN GENERAL, NOT RECEIVE BETA BLOCKERS.** Inderal should be administered with caution since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of beta receptors.

**DIABETES AND HYPOGLYCEMIA.** Beta-adrenergic blockade may prevent the appearance of certain premonitory signs and symptoms (pulse rate and pressure changes) of acute hypoglycemia in labile insulin-dependent diabetes. In these patients, it may be more difficult to adjust the dosage of insulin. Hypoglycemic attacks may be accompanied by a precipitous elevation of blood pressure.

**Hydrochlorothiazide:** Thiazides should be used with caution in severe renal disease. In patients with renal disease, thiazides may precipitate azotemia. In patients with impaired renal function, cumulative effects of the drug may develop.

Thiazides should also be used with caution in patients with impaired hepatic function or progressive liver disease, since minor alterations of fluid and electrolyte balance may precipitate hepatic coma.

Thiazides may add to or potentiate the action of other antihypertensive drugs. Potentiation occurs with ganglionic or peripheral adrenergic-blocking drugs.

Sensitivity reactions may occur in patients with a history of allergy or bronchial asthma. The possibility of exacerbation or activation of systemic lupus erythematosus has been reported.

#### PRECAUTIONS

##### Propranolol hydrochloride (INDERAL®):

GENERAL. Propranolol should be used with caution in patients with impaired hepatic or renal function. Propranolol is not indicated for the treatment of hypertensive emergencies.

Beta-adrenoceptor blockade can cause reduction of intraocular pressure. Patients should be told that propranolol may interfere with the glaucoma screening test. Withdrawal may lead to a return of increased intraocular pressure.

**CLINICAL LABORATORY TESTS.** Elevated blood urea levels in patients with severe heart disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase.

**DRUG INTERACTIONS.** Patients receiving catecholamine-depleting drugs such as reserpine should be closely observed if propranolol is administered. The added catecholamine-blocking action may produce an excessive reduction of resting sympathetic nervous activity, which may result in hypotension, marked bradycardia, vertigo, syncopal attacks, or orthostatic hypotension.

**CARCINOGENESIS, MUTAGENESIS, IMPAIRMENT OF FERTILITY.** Long-term studies in animals have been conducted to evaluate toxic effects and carcinogenic potential. In 18-month studies in both rats and mice employing doses up to 150 mg/kg/day there was no evidence of significant drug-induced toxicity. There were no drug-related tumorigenic effects at any of the dosage levels. Reproductive studies in animals did not show any impairment of fertility that was attributable to the drug.

**PREGNANCY.** Pregnancy Category C. Propranolol has been shown to be embryotoxic in animal studies at doses about 10 times greater than the maximal recommended human dose. There are no adequate and well-controlled studies in pregnant women. Propranolol should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

**NURSING MOTHERS.** Propranolol is excreted in human milk. Caution should be exercised when propranolol is administered to a nursing mother.

**PEDIATRIC USE.** Safety and effectiveness in children have not been established.

#### Hydrochlorothiazide:

GENERAL. Periodic determination of serum electrolytes to detect possible electrolyte imbalance should be performed at appropriate intervals.

All patients receiving thiazide therapy should be observed for clinical signs of fluid or electrolyte imbalance, namely, hyponatremia, hypochloremic alkalosis, and hypokalemia. Serum and urine electrolyte determinations are particularly important when the patient is vomiting excessively or receiving parenteral fluids. Medication such as digitalis may also influence serum electrolytes. Warning signs irrespective of cause are dryness of mouth, thirst, weakness, lethargy, drowsiness, restlessness, muscle pains or cramps, muscular fatigue, hypotension, oliguria, tachycardia, and gastrointestinal disturbances such as nausea and vomiting.

Hypokalemia may develop, especially with brisk diuresis, when severe cirrhosis is present or during concomitant use of corticosteroids or ACTH.

Interference with adequate oral electrolyte intake will also contribute to hypokalemia. Hypokalemia can sensitize or exaggerate the response of the heart to the toxic effect of digitalis (e.g., increased ventricular irritability). Hypokalemia may be avoided or treated by use of potassium supplements, such as foods with a high potassium content.

Any chloride deficit is generally mild and usually does not require specific treatment, except under extraordinary circumstances (as in liver or renal disease). Dilutional hyponatremia may occur in edematous patients; in hot weather, appropriate therapy is water restriction, rather than administration of salt, except in rare instances when the hyponatremia is life-threatening. In actual salt depletion, appropriate replacement is the therapy of choice.

Hyperuricemia may occur or frank gout may be precipitated in certain patients receiving thiazide therapy.

Insulin requirements in diabetic patients may be increased, decreased, or unchanged. Diabetes mellitus which has been latent may become manifest during thiazide administration.

If progressive renal impairment becomes evident, consider withholding or discontinuing diuretic therapy.

Thiazides may decrease serum PBI levels without signs of thyroid disturbance.

Calcium excretion is decreased by thiazides. Pathologic changes in the parathyroid gland with hypercalcemia and hypophosphatemia have been observed in a few patients on prolonged thiazide therapy. The common complications of hyperparathyroidism, such as renal lithiasis, bone resorption, and peptic ulceration have not been seen. Thiazides should be discontinued before carrying out tests for parathyroid function.

**DRUG INTERACTIONS:** Thiazide drugs may increase the responsiveness to tubocurarine.

The antihypertensive effects of thiazides may be enhanced in the postsympathectomy patient. Thiazides may decrease arterial responsiveness to norepinephrine. This diminution is not sufficient to preclude effectiveness of the pressor agent for therapeutic use.

**PREGNANCY.** Pregnancy Category C. Thiazides cross the placental barrier and appear in cord blood. The use of thiazides in pregnancy requires that the anticipated benefit be weighed against possible hazards to the fetus. These hazards include fetal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions which have occurred in the adult.

**NURSING MOTHERS.** Thiazides appear in human milk. If use of the drug is deemed essential, the patient should stop nursing.

**PEDIATRIC USE.** Safety and effectiveness in children have not been established.

#### ADVERSE REACTIONS

##### Propranolol hydrochloride (INDERAL®):

Most adverse effects have been mild and transient and have rarely required the withdrawal of therapy.

**Cardiovascular.** Bradycardia, congestive heart failure, intensification of AV block, hypertension, paresthesia of hands, thrombocytopenic purpura, arterial insufficiency usually of the Raynaud type.

**Central Nervous System.** Lightheadedness, mental depression manifested by insomnia, lassitude, weakness, fatigue, reversible mental depression progressing to catatonia, visual disturbances, hallucinations, an acute reversible syndrome characterized by disorientation for time and place, short-term memory loss, emotional lability, slightly clouded sensorium, and decreased performance on neuropsychometrics.

**Gastrointestinal.** Nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic colitis.

**Allergic.** Pharyngitis and agranulocytosis, erythematous rash, fever combined with aching and sore throat, laryngospasm and respiratory distress.

**Respiratory.** Bronchospasm.

**hematologic.** Agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura.

**Auto-Immune.** In extremely rare instances, systemic lupus erythematosus has been reported.

**Miscellaneous.** Alopecia, LE-like reactions, psoriasis, rashes, dry eyes, male impotence, and Peyronie's disease have been reported rarely. Oculomucocutaneous reactions involving the skin, serous membranes, and conjunctivae reported for a beta-blocker (practolol) have not been associated with propranolol.

##### Hydrochlorothiazide:

**Gastrointestinal.** Anorexia, gastric irritation, nausea, vomiting, cramping, diarrhea, constipation, jaundice (intrahepatic cholestatic jaundice); pancreatitis, sialadenitis.

**Central Nervous System.** Dizziness, vertigo, paresthesias, headache, xanthopsia.

**Hematologic.** Leukopenia, agranulocytosis, thrombocytopenia, aplastic anemia.

**Cardiovascular.** Orthostatic hypotension (may be aggravated by alcohol, barbiturates, or narcotics).

**Hypersensitivity.** Purpura, photosensitivity, rash, urticaria, necrotizing angiitis (vasculitis, cutaneous vasculitis); fever, respiratory distress, including pneumonitis, anaphylactic reactions.

**Other.** Hyperglycemia, glycosuria, hyperuricemia, muscle spasm, weakness, restlessness, transient blurred vision.

Whenever adverse reactions are moderate or severe, thiazide dosage should be reduced or therapy withdrawn.

5112/985

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(ISOSORBIDE DINITRATE)

Please consult full prescribing information before use. A summary follows:

**INDICATIONS AND USAGE:** SORBITRATE (isosorbide dinitrate) is indicated for the treatment and prevention of angina pectoris. All dosage forms of isosorbide dinitrate may be used prophylactically to decrease frequency and severity of anginal attacks and can be expected to decrease the need for sublingual nitroglycerin.

The sublingual and chewable forms of the drug are indicated for acute prophylaxis of angina pectoris when taken a few minutes before situations likely to provoke anginal attacks. Because of a slower onset of effect, the oral forms of isosorbide dinitrate are not indicated for acute prophylaxis.

**CONTRAINDICATIONS:** SORBITRATE is contraindicated in patients who have shown purported hypersensitivity or idiosyncrasy to it or other nitrates or nitrites. Epinephrine and related compounds are ineffective in reversing the severe hypotensive events associated with overdose and are contraindicated in this situation.

**WARNINGS:** The benefits of SORBITRATE during the early days of an acute myocardial infarction have not been established. If one elects to use organic nitrates in early infarction, hemodynamic monitoring and frequent clinical assessment should be used because of the potential deleterious effects of hypotension.

**PRECAUTIONS: General:** Severe hypotensive response, particularly with upright posture, may occur with even small doses of SORBITRATE. The drug should therefore be used with caution in subjects who may have blood volume depletion from diuretic therapy or in subjects who have low systolic blood pressure (e.g., below 90 mmHg). Paradoxical bradycardia and increased angina pectoris may accompany nitrate-induced hypotension. Nitrate therapy may aggravate the angina caused by hypertrophic cardiomyopathy.

Marked symptomatic, orthostatic hypotension has been reported when calcium channel blockers and organic nitrates were used in combination. Dose adjustment of either class of agents may be necessary.

Tolerance to this drug and cross-tolerance to other nitrates and nitrites may occur. Tolerance to the vascular and antianginal effects of isosorbide dinitrate or nitroglycerin has been demonstrated in clinical trials, experience through occupational exposure, and in isolated tissue experiments in the laboratory. The importance of tolerance to the appropriate use of isosorbide dinitrate in the management of patients with angina pectoris has not been determined. However, one clinical trial using treadmill exercise tolerance (as an end point) found an 8-hour duration of action of oral isosorbide dinitrate following the first dose (after a 2-week placebo washout) and only a 2-hour duration of effect of the same dose after 1 week of repetitive dosing at conventional dosing intervals. On the other hand, several trials have been able to differentiate isosorbide dinitrate from placebo after 4 weeks of therapy and, in open trials, an effect seems detectable for as long as several months.

Tolerance clearly occurs in industrial workers continuously exposed to nitroglycerin. Moreover, physical dependence also occurs since chest pain, acute myocardial infarction, and even sudden death have occurred during temporary withdrawal of nitroglycerin from the workers. In clinical trials in angina patients, there are reports of anginal attacks being more easily provoked and of rebound in the hemodynamic effects soon after nitrate withdrawal. The relative importance of these observations to the routine, clinical use of isosorbide dinitrate is not known. However, it seems prudent to gradually withdraw patients from isosorbide dinitrate when the therapy is being terminated, rather than stopping the drug abruptly.

**Information for Patients:** Headache may occur during initial therapy with SORBITRATE. Headache is usually relieved by the use of standard headache remedies or by lowering the dose and tends to disappear after the first week or two of use.

**Drug Interactions:** Alcohol may enhance any marked sensitivity to the hypotensive effect of nitrates.

Iosorbide dinitrate acts directly on vascular smooth muscle; therefore, any other agent that depends on vascular smooth muscle as the final common path can be expected to have decreased or increased effect depending on the agent.

**Carcinogenesis, Mutagenesis, Impairment of Fertility:** No long-term studies in animals have been performed to evaluate the carcinogenic potential of this drug. A modified two-litter reproduction study in rats fed isosorbide dinitrate at 25 or 100 mg/kg/day did not reveal any effects on fertility or gestation or any remarkable gross pathology in any parent or offspring fed isosorbide dinitrate as compared with rats fed a basal-controlled diet.

**Pregnancy Category C:** Isosorbide dinitrate has been shown to cause a dose-related increase in embryotoxicity (increase in mummified pups) in rabbits at oral doses 35 and 150 times the maximum recommended human daily dose. There are no adequate and well-controlled studies in pregnant women. SORBITRATE should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

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**DOSAGE AND ADMINISTRATION:** For the treatment of angina pectoris, the usual starting dose for sublingual SORBITRATE is 2.5 to 5 mg; for chewable tablets, 5 mg; for oral (swallowed) tablets, 5 to 20 mg, and for controlled-release forms, 40 mg.

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ORIGINAL PAPERS

# Mixed Connective Tissue Disease in Childhood: Case Report and Literature Review

CHARLES R. ROBERTSON, JR., M.D.

Needham, Massachusetts

MIXED CONNECTIVE TISSUE DISEASE (MCTD) is a collagen vascular disease having features that overlap rheumatoid arthritis (RA), systemic lupus erythematosus (SLE), scleroderma, and dermatomyositis. Serologically, the disease is distinguished by a high titer of antibody to ribonucleoprotein (anti-RNP) and by a high titer of anti-nuclear antibodies (ANA) in a speckled pattern. This report describes an 11-year-old white female with MCTD and presents a brief review of the disease in children.

## Case Report

An 11-year-old white female was referred to the General Pediatric Clinic at University of Mississippi Medical Center for evaluation of persistent arthritis. History at that time revealed recurrent finger numbness and cyanosis at age 3. At age 5, she began complaining of discomfort in her knees. At age 6, she developed chest pain. At age 9, numbness and cyanosis of her hands were noted to be associated with cold weather. She also developed recurrent low-grade fevers and swelling of wrist and finger joints, coupled with redness of the skin on the extensor surfaces of her fingers. Within a year, swelling of knees and ankles had occurred. At age 11, finger-tip ulcerations developed following the episodes of numbness and cyanosis. She also had developed intermittent difficulty with swallowing and suffered

*The author presents a case report and literature review of mixed connective tissue disease. He notes that treatment currently consists of corticosteroids and, for articular manifestations, nonsteroidal antiinflammatory drugs. He also notes that significant complications and deaths have been reported.*

recurrent episodes of parotid swelling, dry mouth, and dry eyes.

At that time, she was hospitalized by her local pediatrician. Work up revealed a normal complete blood count, an erythrocyte sedimentation rate (ESR) of 52 mm per hour, ASO of 833 units, ANA of 1:640 (speckled pattern), and rheumatoid factor of 1:80. LE cell preparation was negative, and chest radiograph was normal. The patient was started on tolmetin for possible JRA and referred to UMC for further evaluation.

Significant physical findings at UMC included diffuse finger swelling with overlying redness of extensor skin. There was discomfort or limitation of movement of wrists and cervical spine. Mild thoracic scoliosis was present. Facial rash, other cutaneous lesions, and muscle tenderness were absent. Complete blood count revealed hemoglobin to be 13.4 gm/dl with hematocrit of 39.8 per cent. White blood count was 4980 with a normal differential count. Platelet count was 296,000. ESR was 25 mm/hr. Urinalysis was normal. SMAC was normal

From the Department of Pediatrics, University Medical Center, Jackson, MS. Dr. Robertson currently is associated with The Children's Hospital in Boston, MA.

except for a total protein of 9.1 gm/dl with an albumin of 4.1 gm/dl. Anti-DNA was 0.3 micrograms DNA bound/ml serum (normal 0-1.4) using Millipore-Filter technique. Anti-extractable nuclear antigen (anti-ENA), composed of anti-soluble nuclear antigen (anti-Sm) and anti-RNP, was negative.

Because of overlapping signs and symptoms coupled with nondiagnostic laboratory findings, no specific diagnosis was assigned. JRA, SLE, and MCTD were the leading possibilities. The patient was continued on tolmetin. Over the next several months, she exhibited recurrent episodes of arthritis, myalgia, headaches, parotid gland swelling, and digital ulcerations following episodes of cyanosis, pallor, and numbness. Because of the persistent synovitis, hydroxychloroquine was added to her tolmetin therapy.

Eleven months after her first UMC evaluation, she returned with continuing synovitis, chest pain, acne-like malar rash, and iris lesions on her proximal extremities. Urinalysis revealed 3+ proteinuria. ESR was 50 mm/hr. Anti DNA was 1.7 micrograms DNA bound/ml serum. Anti-Sm was again negative, but anti-RNP was positive at a titer of 1:400 by counter-immunoelectrophoresis (CIE). Twenty-four hour urine revealed excretion of 900 milligrams of protein. Prednisone therapy was begun, and hydroxychloroquine was stopped. The iris lesions cleared rapidly after beginning prednisone. Repeat 24 hour urine revealed 1.07 grams of protein and a creatinine clearance of 136 milliliters/minute. Cardiologic evaluation for a source of the chest pain revealed a normal chest radiograph, electrocardiogram, and echocardiogram. The pain subsequently improved with antacid therapy. Percutaneous renal biopsy revealed a non-specific "mild mesangial proliferative glomerulonephritis." With overlapping symptoms and consistent serology, a diagnosis of MCTD was made. Currently, the patient is receiving prednisone and tolmetin and has no more proteinuria. However, the headaches, arthritis, and dactylitis continue.

### Discussion

MCTD was first described in adults in 1972.<sup>1</sup> Shortly thereafter, it was described in a child.<sup>2</sup> Subsequently, other series of MCTD in children have been published.<sup>3, 4, 5</sup> Etiology, as with other collagen vascular diseases, is obscure. Numerous auto-antibodies are usually present. Reports of deposition of immunoglobulins and complement in various organs suggest a role for immune complex disease.<sup>6</sup> The disease has been reported in siblings.<sup>7</sup> Female:male ratio is about 5:1.<sup>4</sup>

TABLE 1  
PATIENTS WITH SYMPTOMS

Symptom	Patients Evaluated*	Per Cent
Polyarthritis	39/41	95
Raynaud's	33/41	80
Fever	22/31	71
Sclerodermatos rash	17/24	70
SLE rash	12/21	57
Dermatomyositis rash	10/26	38
Esophageal dysfunction	19/32	59
Myositis, weakness	14/30	47
Cardiac involvement	11/25	44
Clinical renal disease	12/36	33
Abnormal renal biopsy	9/11	81
Pulmonary involvement	11/23	48
Hepatomegaly	17/36	47
Splenomegaly	15/31	48
Lymphadenopathy	16/30	53
Headache, depression	13/30	43
Salivary gland involvement	13/30	43
Severe thrombocytopenia	6/14	43

\*Numbers of patients differ because of differences in reporting within the studies. (References available)

Clinical manifestations have most frequently included chronic polyarthritis, Raynaud's phenomenon (pallor or cyanosis of hands triggered by cold or emotions), sclerodermatos skin changes, rashes suggestive of dermatomyositis or SLE, and unexplained fevers. Other frequently occurring findings have included Sjogren's syndrome (dry eyes, dry mouth, and enlargement of salivary and lacrimal glands), muscle weakness, and clinically evident renal disease.<sup>4</sup> Findings from several studies in children are summarized in the accompanying table.

Serologically, the disease is characterized by high titers of antibody to ribonucleoprotein, one of the known components of "extractable nuclear antigen." A recent study has suggested that the involved ribonucleoprotein is ribonucleic acid U1.<sup>5</sup> Anti-RNP titers, conventionally measured by passive hemagglutination, are always greater than 1:1000 and often greater than 1:1,000,000 by that technique.<sup>8</sup> (Anti-RNP was measured by CIE in this patient, and the 1:400 titer corresponds roughly to 1:800,000 by passive hemagglutination). Additionally, ANA is usually positive in high titers in a speckled pattern. Anti-DNA and anti-Sm, tests with greater specificity for SLE, are usually negative, or only slightly elevated. Rheumatoid factor may be positive or negative, and the ESR is usually elevated. Anemia, leukopenia, and thrombocytopenia may exist.

The type and duration of therapy is empiric at present, depending on manifestations and clinical response. Articular involvement is managed by aspirin or other nonsteroidal antiinflammatory drugs in dosages usually employed for rheumatoid arthritis. Cutaneous lesions respond well to corticosteroids (0.25-2 milligrams of prednisone/kilogram body weight). Response of subcutaneous, muscular, renal, cardiac, and pulmonary lesions is less certain.<sup>9</sup>

Long-term prognosis is uncertain at this time. The outlook is felt to be less ominous than with SLE, but significant morbidity has been reported in children.<sup>3, 4, 5</sup> Cardiac lesions have included pericarditis, myocarditis, progressive myocardiopathy, cor pulmonale, and arrhythmias. Renal abnormalities have included interstitial nephritis, membranous glomerulonephritis, proliferative glomerulonephritis, and mesangial proliferation. End-stage renal disease has occurred, requiring dialysis. Also reported have been restrictive lung disease, thrombocytopenia, and esophageal dysfunction. One histological study also revealed medial and intimal proliferative changes in the arteries of many organs.<sup>10</sup> These unsuspected lesions may herald the future appearance of organ dysfunction syndromes as yet undescribed. Deaths have occurred, and in one reported autopsy series in children, were attributed to sepsis in three (pneumococcus — 2, meningococcus — 1) and severe thrombocytopenia (CNS hemorrhage) in one.<sup>10</sup> Sepsis has been reported as a cause of death in one other study,<sup>5</sup> therefore careful monitoring of infections in these patients would seem prudent.

### Summary

Mixed connective tissue disease is a recently described collagen vascular disease characterized by an overlap of symptoms suggestive of RA, SLE, dermatomyositis, and scleroderma. Treatment is at present empiric and consists of corticosteroids and,

for articular manifestations, nonsteroidal antiinflammatory drugs. Prognosis is thought to be better than with SLE, but significant complications and deaths have been reported.



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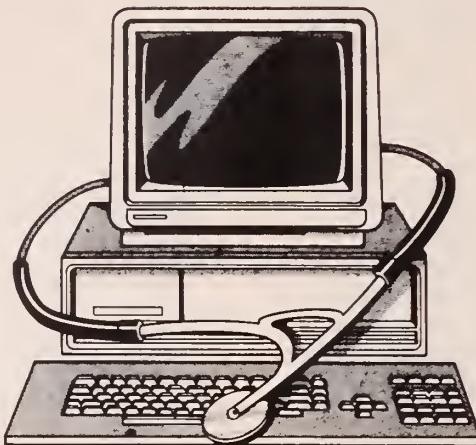
### Acknowledgement

The author thanks Howard Nichols, M.D., Valee Harisgangkul, M.D., and Dorothy Jones for their assistance.

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# Anorectal Squamous Cell Carcinoma at Mississippi Baptist Medical Center: Results of the Last Five Years of the Nigro Schedule

R. ARNOLD SMITH, M.D., G. C. STUBBLEFIELD, JR., M.D.,

D. T. BROCK, JR., M.D., and MORRIS T. REAGAN, M.D.

Jackson, Mississippi

BETWEEN AUGUST, 1978 and August, 1983 thirteen consecutive patients with cloacogenic anorectal squamous cell carcinoma were treated with the Nigro regimen<sup>1, 2</sup> at Mississippi Baptist Medical Center (MBMC). A fourteenth patient, not included in this series, had mixed squamous and adenocarcinoma, required abdominoperineal resection, and died with lung and brain metastatic disease. The Nigro regimen employs two consecutive cycles of infusion 5-flourouracil combined with bolus Mitomycin-C on the first cycle and concurrent radiotherapy to 3000 rads in three weeks. Infusion 5-fluorouracil is begun during the early phase of radiotherapy, preferably day one. The Nigro schedule begins radiotherapy and infusion on a Monday, but we were less adherent to this policy, starting treatment on the hospital day when the diagnosis was clearly established. Radiation employed whole pelvic fields with extinctions to include all groin lymphatics from the anterior portal of each patient. Nigro's reports of this method describe excellent results representing a major advance in treatment. Careful institutional review of results was indicated to confirm these favorable reports. For this review all charts in the Radiation Therapy Department of patients treated since August, 1978 were reviewed. Survivals were determined as of March, 1985.

## Patient Description

There were ten female and three males and all were caucasian. The age range was from 54 to 78, and the median age was 74. Twelve patients had some involvement of the anal canal; one patient's tumor was of the distal rectum only.

From the department of radiation oncology (Drs. Smith and Reagan), medicine (Dr. Stubblefield) and surgery (Dr. Brock) of Mississippi Baptist Medical Center, Jackson, MS.

*Refinements in cancer treatment improve functional results, improve cure rates, or both. The Nigro schedule for anal squamous cancers is a cooperative effort among oncologists which avoids abdominoperineal resection, prevents most local recurrences, and which has apparent minimal long term morbidity. In this report the authors review the first five years of their experience with the modality.*

## Results

A survival curve is plotted in Figure 1. All ten surviving patients are without evidence of disease, the longest survivor now out greater than five years. All patients have kept their rectums intact. The two early deaths were due to metastatic tumor. The late death of the longest survivor was from an unknown cause, but the patient is presumed to have died free of disease.

## Complications and Side Effects

Most patients were female, and the low lying pelvic fields regularly produced a painful acute moist reaction in the perineal and vulvar regions. This reaction was treated with sitz baths and systemic analgesics, and healing occurred rapidly in the first two weeks after completion of radiotherapy. All patients were healed by one month after radiotherapy. Diarrhea or dysuria were common during treatment and were controlled symptomatically when needed. One severe and life-threatening complication occurred in a female patient who developed abdominal distention, crampy abdominal pain,

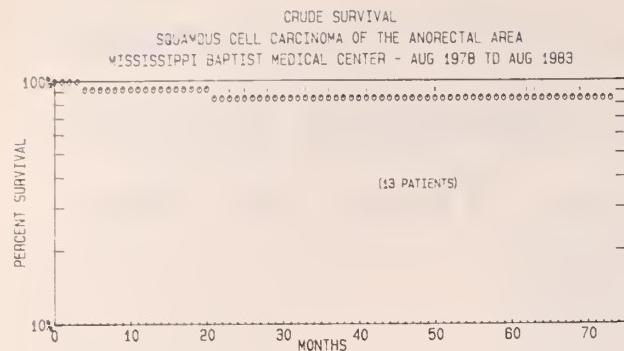


Figure 1.

ileus, high fever, and marked prostration during radiotherapy. The white count nadir during this episode was 1000 cell/mm<sup>3</sup> and the platelets at this time also had fallen from 471,000 to 39,000. Gastric suction was employed. The patient improved with antibiotics, but the exact mechanism or cause of this reaction was not determined. This patient is now without evidence of disease.

With reference to long term side effects, several patients reported intermittent diarrhea and rectal burning of a mild degree. One patient had bowel adhesive disease requiring surgery. Most patients

were quite satisfied with the low level of persistent side effects and claimed to be feeling fine. No persistent rectal or bladder ulcerations occurred.

### Conclusion

The initial data from this institution confirms Nigro's reports of excellent tumor control and generally successful preservation of function. The Nigro schedule appears at this time to be clearly the treatment of choice for this tumor condition.



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### Acknowledgements

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# Radiological Seminar CCXLIII: CT Examination in Acute and Complicated Appendicitis

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ACUTE APPENDICITIS is a fairly common cause of acute abdominal pain, and early diagnosis is necessary for effective management and to minimize complications. However, classic clinical findings are not always present in the individual patient. We present four case reports of patients with either acute appendicitis or its complications in whom CT examination of the abdomen contributed significantly to early diagnosis and effective management. CT findings of right lower quadrant are of course non-specific and do not in themselves confirm the diagnosis of acute appendicitis. To our knowledge, CT findings in acute appendicitis have not been previously described.

## Materials And Methods

All examinations were done on a General Electric CT/T 8800 Scanner. Unless specifically contraindicated, all examinations were done using intravenous contrast material. When feasible, one ounce of water soluble contrast medium was given the night prior to the examination for ideal colon opacification. In all examinations dilute water soluble contrast medium was given immediately prior to the scan.

## Case Reports

*Case I:* A 21-year-old male in otherwise good health developed abdominal pain, nausea and vomiting three days prior to admission. His pain gradually localized to the right lower quadrant. Physical examination on admission showed a right lower quadrant and right flank tenderness with a palpable right lower quadrant mass. Initial laboratory work showed a white blood count of 17,500, temperature 94°, pulse 92, respiratory rate 36. CT scanning was per-

formed preoperatively which showed distortion of the soft tissue planes about the right kidney along with a small amount of fluid density surrounding the kidney. There was also enlargement of the right psoas muscle with loss of tissue planes along the right lower abdominal wall (see Figure 1). Acute appendicitis was confirmed at laparotomy.

*Case II:* A 50-year-old female was admitted to the orthopedic service for painful left leg following a fracture in the distant past. Three days after admission she began to develop cramping lower abdominal and lower back pain which became dull and steady in nature. No nausea, vomiting, fever, chills, jaundice, diarrhea or melena were reported. On examination at that time the patient was afebrile with a pulse of 96, respiratory rate 12 per minute. Abdomen was slightly distended and tympanic and bowel sounds were somewhat hyperactive. There was mild to moderate direct tenderness over the entire abdomen, greatest in the lower quadrants. No palpable masses or organomegaly were found. Pelvic and rectal examination were within normal limits. White blood count was 30,500. CT examination revealed thickening of the wall of the ascending colon (see Figure 2). The patient was taken to surgery where the right colon was examined and felt to be inflamed. Approximately 30 cc of pus were encountered in the mid lower abdomen. The appendix was felt to be grossly normal at the time of surgery although subsequent histologic examination revealed acute appendicitis and periappendicitis. The patient did well postoperatively aside from a persistently elevated white count which was felt to be a leukemoid reaction.

*Case III:* A seven-year-old black male was referred from an outside hospital. He had undergone appendectomy approximately two and a half weeks earlier for acute gangrenous appendicitis. General-

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From the Department of Radiology, University Medical Center,  
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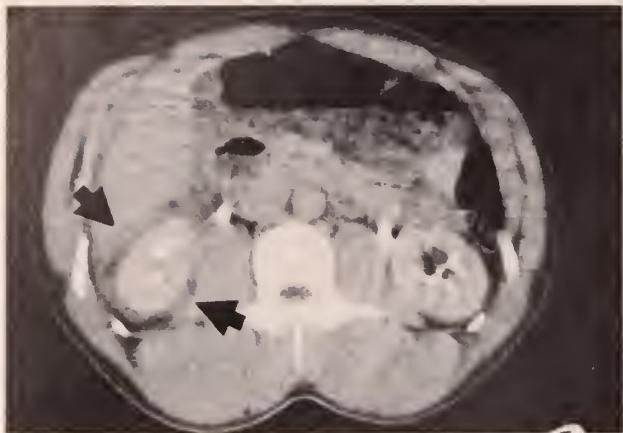


Figure 1A. Arrows outline small amount of fluid surrounding the right kidney.

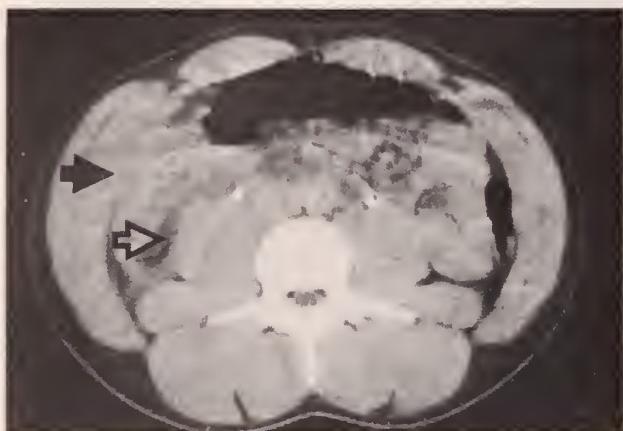


Figure 1B. Closed arrow points to inflamed region of appendix with loss of tissue planes. Adjacent flank muscles are enlarged. Open arrow indicates enlarged right psoas muscle.



Figure 2. Closed arrows point to inflamed colon with thickened wall. Open arrow points to normal adjacent colon without wall thickening.

ized peritonitis was evident at that time. Postoperatively, the patient remained febrile and was treated with multiple antibiotics. Subsequent chest x-ray showed an air fluid level beneath the right hemidiaphragm and was felt to represent subdiaphragmatic abscess. He was transferred to the University Hospital at that time.

Examination on admission revealed temperature of 102.5°. The abdomen was distended with hypoactive bowel sounds. No masses or tenderness were evident on palpation. White blood count was 10,100. The day following admission he was taken to the operating room where subdiaphragmatic abscesses were drained bilaterally. Postoperatively, purulent fluid drained through the surgical site. On the seventh postoperative day, CT examination of the abdomen revealed bilateral subdiaphragmatic abscess and an appendiceal fossa abscess with multiple abscess pockets in the pelvis (see Figure 3). The patient was taken back to surgery where the abscess pockets were drained. The patient's condition gradually improved and he was discharged from the hospital afebrile, off antibiotics.

**Case IV:** A 60-year-old male diabetic presented with a five-day history of constant right sided abdominal pain. The patient reported no nausea, vomiting, diarrhea, hematemesis or change in bowel habits. Examination on admission revealed a temperature of 98°, pulse 108, respiratory rate 18 per minute, blood pressure 150/90. Abdominal examination showed voluntary guarding and tenderness to palpation in the right lower quadrant. Bowel sounds were decreased, there were no peritoneal signs, and rectal examination was negative. White blood count was 8,000. Ultrasound examination of the gallbladder was normal. CT examination was obtained which showed increased soft tissue density and fluid in the appendiceal area which was suspicious for appendicitis with abscess formation (see Figure 4A,B,C). The upper GI series with small bowel followthrough demonstrated what appeared to be pericecal inflammatory changes with the distal terminal ileum appearing fixed in position. There was displacement of adjacent loops by what appeared to be inflammatory mass effect. Clinically the patient was not thought to have a periappendiceal abscess and was treated with antibiotics. He continued to improve and was discharged. A repeat small bowel examination two months later was completely within normal limits. CT examination at the time was also normal (see Figure 4D). Clinical impression was that of an inflammatory process which had subsided, the differential diagnosis including appendicitis vs. Yersinia enterocolitis.



Figure 3A. Arrow indicated abscess in immediate appendiceal region.



Figure 3B. Arrows indicate abscesses beneath both hemidiaphragms.

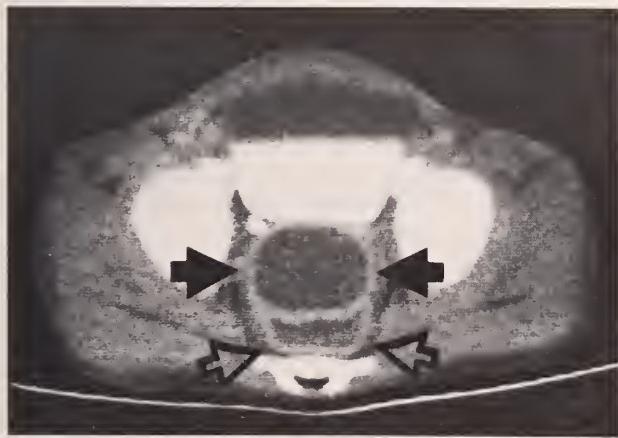


Figure 3C. Closed arrows point to abscess in pouch of Douglas. Open arrows point to rectum.

## Discussion

The value of CT examination for intraabdominal abscess is well recognized. The accuracy and utility of CT scanning for this indication are described by Wolverson et al,<sup>1</sup> including two cases of periappendiceal abscess. A perinephric abscess due to ruptured retrocecal appendix diagnosed by CT was reported by McGahan.<sup>2</sup>

CT findings in appendicitis fall into two main categories. First, early in the course of the disease, changes are mostly those of edema reflecting local inflammatory change. Depending upon the extent of inflammation, changes may be observed in the terminal ileum and right colon, right lower abdominal wall, or, as in Case 1, extending up the right paracolic gutter to involve the perirenal space. When the peritoneal cavity becomes contaminated by pus, ab-



Figure 4A. Arrows point to small abscess in appendiceal (pericecal) region.



Figure 4B. Lower slice with arrow indicating inflammation in the area of the terminal ileum.



Figure 4C. Arrows pointing to inflammation of mesenteric fat with increased density and streaking.

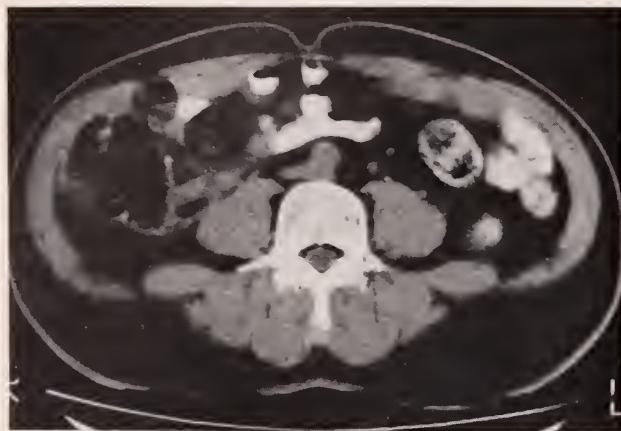


Figure 4D. Follow-up normal scan of appendiceal region.

scess formation can be seen anywhere in the abdomen.

We emphasize that inflammation in the right lower quadrant is a nonspecific finding and can be due to numerous conditions, notably Crohn's disease among others. CT perhaps has its greatest utility in the early detection of inflammatory changes in the right lower quadrant, when physical findings may be ambiguous.

In cases of appendicitis we have found opacification of the colon with water soluble contrast material to be of tremendous benefit in evaluating the thickness of the inflamed bowel wall and in distinguishing unopacified loops of bowel from abscesses.

Without meticulous attention to opacification of bowel loops, particularly the colon, early changes of appendicitis will be overlooked. There is inevitably some time delay in opacifying the colon via the oral route; thus in patients with acutely emergent illnesses, delay for CT scanning may not be feasible, and if obtained, CT scans of suboptimal quality will have to suffice.

Computed tomography, performed properly, is of value, even if negative, in evaluating the patient for suspected appendicitis or in the postoperative appendectomy patient, when employed to evaluate for recurrent abscess.

### Summary

CT examination of the abdomen can reveal localized inflammatory changes in patients with right lower quadrant disease, thus guiding the clinician to the area of concern when clinical findings may be ambiguous. The findings in the right lower quadrant which lead to the diagnosis of inflammatory disease include: (1) thickening of colon wall in the cecal area (2) pericecal fat inflammation (3) thickening of the wall of small bowel loops (4) right psoas muscle enlargement (5) loss of fat planes (6) distortion of soft tissue planes. While the changes in three of the four patients presented in this paper were due to either acute appendicitis or to complications of acute appendicitis, we emphasize that the findings are nonspecific and could be due to any inflammatory process involving the right lower quadrant. Associated abscesses will be detected in the complicated cases. Proper opacification of the colon and small bowel is necessary for ideal evaluation. Thinner slices than usually taken with the use of the target program may be necessary in less obvious cases. In addition, CT scanning, properly performed, can exclude the diagnosis and detect the true abnormality present.



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# The Malpractice Situation: Historical Background and Present Status

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THIS TITLE MAY be a misnomer inasmuch as I have been asked to give you a somewhat broad review of the historical development of the judicial process, bringing the system more or less current in the hope that, if you have a better view of the system and how it evolved, you may feel a bit more comfortable in dealing with it.

You must understand, however, that scholars have spent a lifetime doing what I will treat in thirty minutes. Thus, my handling can be scarcely more than an introduction.

In the remaining fifteen minutes, I will try to put this into perspective for you and draw some parallels.

To those of you who have faced the judge and jury down at the local courthouse, you may feel that the adversary system of justice which we "enjoy" today is but a stone's throw removed from the stone age. Thus, a peek into history may make you feel a bit better.

Try to follow your blood lines back to the time when your forefathers were laboring under what must, to them, seem something akin to your own anxieties of the day:

The conquering Anglo-Saxons were groups of tribes that did not think of themselves as nations. The two institutions of early Anglo-Saxon law were the blood feud and lynching. The feud and lynching are distinct from unorganized homicide, which does not require the existence of society. Along with slaking the thirst for blood, they had the aim of maintaining order within a community.

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*The author describes the historical background and current status of the malpractice situation. He remarks that we have swung from a laissez-faire to a consumer-oriented society, and that we live in a litigious society. He expresses the hope that if physicians better understand the system, they will be better equipped to cope with it.*

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In those times, lynching was not only legal; it was obligatory. If a criminal act was seen to occur, the community was duty bound to chase the culprit and kill him when it caught him. It came to be known as the "hue and cry." The one who saw the crime would let out a yell. Anyone who heard the yell was supposed to join the chase.

Today, the hue and cry would not work. The *New York Times* of February 9, 1971, reported the following: "When a robber fleeing from a shop with about \$2,760 began scattering coins and bills as his pursuers gained on him, more than half the crowd abandoned the chase and began helping themselves. The robber made his getaway."

Anyway, the hue and cry was all the trial there was: a victim and a runaway, and the evidence of one person's cry. It was a quick procedure.

The feud was long, and sometimes needed careful nursing. The killing of a member of a clan provoked response, and the response in turn required retribution, and so on. There was no fixed end to it, short of a clan's extinction.

Slowly crude judicial systems were developed. For the feud the substitute of money payments took the place of vengeance, or the "wergeld" system.

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There were different sums for different kinds of injury and for different men, according to their status. Mob execution became illegal and communal courts took on the task of deciding guilt or innocence. There were two modes of trial: ordeal and compurgation.

### Trial by Ordeal

Compurgation occurred as follows: The accused swore that he was innocent and then his friends stated that he was a man of good repute and that his oath was good. There was no inquiry into the facts. The defense was that the defendant denied the charge, and that he was a man who did not lie.

Compurgation was for the upper classes only. Most people had to face ordeal. Ordeal was frankly supernatural. Guilt or innocence was determined by some sign from God. The principal ordeals were these: the accused would carry hot iron in bare hands, dip his arm in boiling water, or be bound and plunged into a pond or stream. The first two turned on medical consequence. After several days had passed, the injury was inspected. If the burn was healed, the accused was innocent; if it festered, he was guilty. In ordeal by water, if the accused sank, he was innocent; if he floated, he was guilty — a no-win proposition.

Ordeal was for criminal cases only. Battle, like compurgation, was for both criminal and civil cases. Champions were used only in civil disputes; those accused of crime had to do their own fighting. Trial by battle has its modern counterparts. Contemporary litigation, to a large extent, goes according to the skill and strengths of the advocates.

### King's Courts

With the Norman Conquest and the emergence of a feudal society, the most important thing for a ruler to have was dominion over land. When Henry II, the same Henry who married Eleanor of Aquitaine and who fathered Richard the Lion-Hearted, came to the throne, he directed his officials to find out who owned what. To help them get the facts, the King's men summoned a jury. The person claiming he was dispossessed had his claim decided by his neighbors, who gave sworn answers to the royal emissary.

It was not the jury as we know it today. It was a body of neighbors who acted on their own knowledge of the facts. They did not sit and listen to the evidence; they brought the evidence to court themselves. However, the ultimate function of the jury is the same, determination of the facts.

Henry then organized a system of royal courts which offered trial by jury as a legal right for certain

disputes. It was the same kind of litigation we would today call civil. At the very same time he brought the jury into criminal law. This jury heard no witnesses. They could act on personal knowledge, or without it. After the jury had reported to the King's emissaries, or "justices," the accused went to trial. The trial was exclusively by ordeal then. But by 1166, even if the accused was proven innocent by the ordeal, he still was exiled.

Henry II did not take the ordeal seriously. He preserved the institution to assuage those who were troubled by all of the other changes. So he rendered its outcome unimportant. The ritual could be performed for the many who were interested in ritual, but once the jury had lodged its "accusation," the case for governmental purposes was done. So the jury's report was far more than accusation; it was the trial itself.

After the Catholic Church abolished ordeal, English officialdom replaced this second half of the legal process with a smaller jury. However, it was hardly likely that the smaller jury would reach a different conclusion from that of the first jury as it was made up of the same people. So the work of the accusatory jury remained the important thing. By the middle of the fourteenth century, the two juries had become totally distinct and had gotten separate titles. The jury of accusation, being the larger body, was the "grand jury," and the smaller, the "petit jury."

Even though the royal courts of Henry II almost exclusively used the jury system, the communal and feudal courts still held on to compurgation, ordeal and battle. However, when ownership of the all important land became disputed, Henry II began to intervene to enhance his own power. He issued writs, directing the Justices to choose twelve others, which jury decided both facts and law.

About the same time, other regular writs were created that brought other kinds of dispute into the king's own court. They dealt not with land but with goods or money. They were called Debt, Detinue and Covenant.

Covenant resembled our modern contract actions. But the Writ of Covenant was soon restricted to claims based on documents under seal. If the defendant's seal was on the document, it would be enforced. If the defendant claimed it wasn't his seal, the issue would be tried by combat.

Debt had to do with money — money loaned or due on sale. Detinue had to do with goods — plaintiff claimed defendant wrongfully detained them. Trial for Debt and Detinue was by compurgation.

In the beginning, in all actions in the royal court or

on royal order in a local court, the writ was custom made and granted on petition. Writs were issued from the Chancery, a group of clerks headed by the Chancellor, a secretary to the King. As more petitions came along, a writ already fashioned might answer the grievance. Before long there was a register of standard writs, each adapted to a familiar set of circumstances. They could be obtained from the Chancery simply by paying a fee without bothering the King himself. The writs became categories, and if the statements in the writ were lent credence by appropriate proof, judgment would follow. The various writs, with the characteristic procedure and the characteristic remedy that adhered to each became the "forms of action."

Whether the action took place in the King's court or the lord's court, it was extremely slow. One reason why it was so slow was that the idea of legal representation had not yet come to English law. There was no profession of law. So at each stage of the case the litigants themselves had to be in court. But one or the other might have good reason not to. He might be on a holy pilgrimage or off crusading; he might be suffering a fever. The litigation would have to wait. A large body of law developed on the subject: it specified the excuses for non-appearance. Illness was good for a year and a day, but the ill person had to really be in bed. Four knights would be sent to check on his excuse. They would report whether they found him up and about or "in bed as befits a man making such excuse, boots off, breeches off, all ungirt, or even naked, *quod plus est.*" The Latin hardly needs translation: if he had nothing on at all, that was a plus.

By the middle of the thirteenth century, the Register of Writs had expanded to include about five hundred standard writs, though only a few were frequently used. Five hundred may seem a great many, but the writs were narrow, and the facts of the case had to fit the form.

However, by the end of the thirteenth century, the feudal lords whose jurisdiction over their local feudal courts had been diminished by the king's issuance of writs, spurred on by the Magna Carta, rebelled and forced Henry III to accept the Provisions of Oxford, which required the Chancellor to swear he would issue no writs except those already established. Pretty soon would-be plaintiffs were grumbling because their cases would not fit the writs. As the common law courts came to be recognized more clearly as separate legal institutions, exercising definite powers, rather than as delegates of the king's prerogative, they tended more and more to lose their discretionary power and to become

bound by rigid rules which only the king in Parliament could change.

The chancellors began to intervene in special cases on petition when the common law courts ceased to give relief in many cases, because they did not come within the existing forms of action. The reason urged for special relief was the ineffectiveness of the remedy at common law and gradually there emerged a group of cases where the law gave no relief. Resort had to be made to the chancellor.

Until the fall of Cardinal Wolsey during the reign of Henry VIII, the chancellors were mostly ecclesiastics. During the period of the ecclesiastical chancellors, equity was regarded more as an administrative function of the executive branch of the government, rather than a separate judicial system. In the early part of this period there was little opposition by the common law judges to the operation of equity. But when the chancellors began to enjoin the prosecution of actions at common law, and especially when they undertook to enjoin the enforcement of a common law judgment, and began to be recognized as judicial officers of a separate court, the opposition of the older courts increased.

This conflict was resolved when a royal commission headed by Francis Bacon reported that the chancellor could enjoin a party from enforcing a judgment, but could not affect the judgment itself, nor the court which rendered it, in effect furnishing the formula under which the two systems could exist side by side.

### **Evolution of Common Law**

This evolution is traditionally referred to as the common law. It is law of custom, as opposed to statutory law, and by the time our ancestors migrated to America the common law had taken on a significant form, to-wit: the ex contractu forms of account, assumpsit, covenant and debt; and the ex delicto forms of detinue, replevin, trover, trespass on the case, ejectment, forcible entry and trespass. There were also the common law actions of dower, waste, the writ of right and the writ of entry.

Thus, it is not surprising that our early emigrants brought with them the common law concepts of England and planted them firmly into our legal history. They have evolved and, even today, the common law provides the greatest body of law with which we contend.

The common law, in a sense, is common sense and grows from day to day as our courts of record add to the body of law in accordance with community needs. It is that body of case or judge-made law from which we draw in almost every case we try.

The other body of law is "statutory" and is made up of the laws passed by our state and federal legislative bodies.

There is, perhaps, a third body of law and that is "administrative law." This is composed of rules and regulations promulgated by administrative agencies in the implementation of statutory enactments and are, for the most part, administered by administrative courts, bodies, etc., e.g., Workmen's Compensation Commission, Veterans' Administration, Social Security Administration, National Labor Relations Commission or Board, etc., some or all of which feed into the judicial process at some point along the way.

Interestingly enough, there is no federal common law. This is residual to the states and while most of the states have some similarities, they evolved differently to serve different local needs. The federal courts are bound to apply these rules of common law in diversity actions.

### **Modern Court Systems**

And now, about the courts: We have our system of state courts and federal courts. For instance, in Mississippi, we have the following:

- Justice Court Judge (a six man jury can be requested)
- Municipal courts (no jury)
- County courts (law and equity — a jury can be requested — six persons — appeals lie from Justice Court and Municipal Courts) — has limited civil and criminal jurisdiction.
- Circuit Courts (twelve person jury is automatic unless all sides agree to waive it. It has jurisdiction of all civil matters in excess of \$200 and all criminal matters involving punishment in excess of one year's imprisonment. It handles many appeals from County Court, Mississippi Workmen's Compensation Commission, etc.)
- Chancery Courts (This is the equity court and handles probate, domestic relations, etc. It has no jury but a jury can be requested in limited matters. It evolved from the chancery or chancellor discussed hereinabove. It also handles various appeals.)
- Supreme Court. This is the final appeals court and writes and publishes opinions which are binding upon the lower or lesser courts and provides the common law in written form which we try to follow as precedents. This tends (or is supposed) to lend stability and predictability to the law in the form of "stare decisis."

There are some instances where an appeal may lie from the state supreme court to the United States Supreme Court but these are rare. There are a few

cases which must be tried before the Supreme Court, as a court of original jurisdiction.

In the Federal System we have the constitutional and the statutory courts.

For our purposes, it would seem sufficient to state that in Mississippi, we are divided into the Northern District and the Southern District. The Northern District has four divisions: Eastern (Aberdeen), Northern (Oxford), Delta (Clarksdale) and Greenville (at Greenville). The Southern District has five divisions: Southern (Biloxi), Hattiesburg (at Hattiesburg), Western (Vicksburg), Jackson (at Jackson) and Eastern (Meridian). These are district courts.

We have a system of magistrates but I won't go into that inasmuch as they work closely with the district courts.

Cases may be tried before a jury or judge. Juries are not automatic. They have to be requested. Juries in the Northern District are made up of six persons. In the Southern District the juries are made up of twelve persons.

Appeals go to the United States Courts of Appeals, Fifth Circuit, sitting in New Orleans. These appeals are, for the most part, a matter of right. Appeals go from the Fifth Circuit to the United States Supreme Court, on petition for writ of certiorari. These appeals are not a matter of right.

Jurisdiction in federal court may be based upon diversity of citizenship (where the plaintiff and defendant(s) are residents of different states and the amount of controversy exceeds \$10,000) or the involvement of a federal question. There are many refinements to this latter category, not necessary to this paper.

The United States Supreme Court may also be a trial court of original jurisdiction in a few limited instances.

Note: if your patient resides in another state, he may want to sue in federal court.

Each court system has its procedural rules. The Federal Rules of Civil Procedure, since 1938, and the Mississippi Rules of Civil Procedure, effective January 1, 1982, govern practice in the county, circuit and chancery courts. For the most part, the state court rules are patterned after the Federal Rules with the notable exception that we have no third party practice in state courts and the judges, because of medical privilege, can't order an independent medical examination.

### **Court Procedures**

I will briefly outline, in a very broad way, some of the things you may observe in the development of a federal action, to-wit:

Aside from the notice of representation which plaintiff's attorney might be expected to write, the action is really initiated by the filing and serving of the complaint. The complaint starts by giving the basis of the court's jurisdiction. It ends by saying what the plaintiff wants, the "prayer" or "demand for judgment." In between, there need be only "a short and plain statement of the claim showing that the pleader is entitled to relief." The defendant's answer is to be comparatively terse.

If the complaint or answer nevertheless appears to be defective, or if there is something the pleader wants to change or add, leave to amend is freely granted. Each party is to learn the specifics of the other's claim or defense not from the pleadings, but from discovery procedures. The issues are drawn, and the court is informed of the nature of the case it will have to try, in a pre-trial conference of the judge and the attorneys, and through certain pre-trial motions.

The discovery procedures are varied and effective. Each side must furnish the other, on demand, with its records and documents relating to the case. Written interrogatories may be served to which written answers must be given. There can be oral examination, or deposition, under oath, in advance of trial, not only of the parties, but of other people who may have some useful information.

At the pre-trial conference, the opposing lawyers meet with the judge and under his governance articulate the issues. The conference also provides a ripe occasion for settlement. The judge usually gets to know enough about the case to reach a rough appraisal of the merits. It also gives him occasion to use the prestige of his position to induce a compromise.

The "motion for summary judgment" is designed for the situation in which documents and affidavits establish the facts so clearly that there remains no "triable issue of fact." The questions of law are decided on the motion, and final judgment can be reached without having to go to trial.

At the trial, both parties make opening statements in which they explain their side of the case to the jury so that it will be better able to follow the proof. The plaintiff then attempts to prove his case. The first witness for the plaintiff is called to the witness stand for direct examination and is sworn to tell the truth. His testimony is elicited by questions posed by the plaintiff's lawyer. Throughout the witness' testimony, the counsel for the opposing party will object to evidence which he does not deem admissible.

The law of evidence is a relatively young branch of the law. Some scholars see the adversary system

as the source of the law of evidence. If we wish to learn the truth by leaving it to the litigants to provide the court with facts, we must lay down some rules. Certain kinds of proof are admissible, other kinds are not, and the determination must be made by standards the litigants can know. These standards must be stated and available so the contestants can prepare and so the fairness or unfairness of the contest may be shown.

### Evidence

The first standard of admissibility is materiality. Evidence which is immaterial goes outside the issues fixed by the pleadings. The standard of relevance is interwoven with materiality: every happening is related to another. The question is how closely are they related. There must be a quantitative judgment somewhere. Competence is the third standard. Certain kinds of proof presented are more reliable than others.

Evidence is mostly oral or documentary. The former is testimony — words spoken in court by a sworn witness. The latter is writing that may be introduced — correspondence, contracts or memoranda. Sometimes physical objects are evidence — a sample of the goods delivered, the alleged murder weapon.

We must be careful to distinguish between "admissibility" and "weight." The fact that the evidence will be heard does not mean that it will convince. The trier of the facts will assess it, compare it with conflicting evidence, and decide how well it fits his own idea of what is plausible and what is not.

Admissible evidence must be "fact" as opposed to "opinion." Ordinarily a witness may not give an opinion, an inference, a deduction, or a supposition, however plausible that may be. However, when an opinion is central to the dispute, the law allows statements of opinion if they are given by people specially qualified as experts on the subject. When a lawyer seeks to have such testimony taken, he puts the witness on the stand and asks him questions whose answers he hopes will demonstrate knowledge and experience. The judge then rules on whether the witness is sufficiently expert, and if he rules favorably, the witness is allowed to give his opinion. This process is called "qualifying the witness."

The concept of admissible evidence also excludes what is known as "hearsay" — a witness shall speak only of his own perceptions, not of someone else's, and a document is evidence only of itself, not of things outside itself. Unless the words themselves

are a relevant event, a witness may not testify to someone else's words. There are exceptions. He may speak only of what he knows directly, not of what someone else told him.

After direct examination, the defendant's lawyer is permitted to cross-examine the witness to show additional facts or inconsistencies or to attack the witness' credibility. After presenting his proof, the plaintiff will rest.

At this point, the plaintiff must have introduced enough evidence on all issues as to which he has the burden of proof to justify a jury verdict for him. The defendant may test whether the plaintiff has done so by a motion that the action be dismissed. The issue raised is only whether a reasonable jury could, on the basis of the plaintiff's evidence, reach a verdict in his favor. This is therefore regarded as an issue of "law" rather than one of "fact" and the judge alone passes upon the motion. If it is granted, the dismissal ends the trial and operates as a judgment on the merits for the defendant. If it is denied, the defendant must proceed with his case.

The defendant will then present his evidence in the same manner as did the plaintiff. This time the latter will have the right of cross-examination. At the close of all the evidence, either party may move for a directed verdict on the ground that a reasonable jury could only return a verdict in his favor. This motion is also considered to raise a question of "law" rather than one of "fact." If the judge grants the motion the trial will end and judgment will be entered for the moving party. If he denies the motion, the trial will proceed to its conclusion.

Both parties will then make their closing arguments. Arguments must be confined to the evidence which has been presented and each side will attempt, by analysis of the proof, to persuade the jury that it should decide the case in its favor. The judge will then charge the jury by instructing it in the rules of law under which it is to reach its decision.

After the charge, the jurors retire to the jury room where they deliberate in secret for a matter of minutes, hours or even days, until they reach their verdict. In a civil case the jury must be persuaded "by a preponderance of the evidence," or in other words, that the existence of the contested fact is more probable than not.

After the jury verdict, the losing party may move for a new trial on a variety of grounds, including prejudicial error by the judge in ruling on the admissibility of evidence or in instructing the jury, or a verdict which is against the weight of the evidence. Finally, the judge will enter judgment on the verdict. The judgment will ordinarily require the losing party

to pay the costs of the successful party.

While the foregoing is descriptive of federal practice, under the Federal Rules of Civil Procedure, it is, with one or two exceptions, descriptive of proceedings under the new Mississippi Rules of Civil Procedure.

Under the Mississippi Rules of Civil Procedure, a pre-trial conference is generally not held routinely. Rarely will the court call for it. Litigants are beginning to do so more. In federal court, pre-trial conferences and pre-trial orders are routinely done (except with regard to one judge).

In state courts, the jury receives the jury instructions before it hears closing arguments. In federal court, the jury hears argument, then receives the court's instructions.

The defendant should be reminded that, in both state and federal court, he can and may be called as an adverse witness. Frequently, in malpractice actions, the plaintiff may very well try to make his case by calling the defendant, both as a fact witness and as an expert.

You should now have a very general idea of the judicial system, how it evolved historically and how it works. However, three important ingredients are lacking, to-wit: the judges, the juries and the lawyers.

Judges are simply ex-lawyers who have been moved from the game, where they used to be players, to the lofty perch of referees. They generally carry with them the same qualities, good or bad, which drove them as advocates.

The juries are made up, usually at random or by computer key, from the electorate and freeholders. They, likewise, come to the jury box with all of the imperfections that they "enjoy" in their everyday lives. You might take note, and heart, of the fact that the jury in America knows none of the facts but serves as an impartial trier of the facts. This is an important departure from the juries we discussed in Anglo-Saxon times.

### About Lawyers

A word about lawyers:

Luke 11:46 had this to say: "And (Jesus) said, Woe unto you lawyers also! For ye load men with burdens grievous to be borne, and ye yourselves touch not the burdens with one of your fingers."

In *Henry VI*, Shakespeare said, "The first thing we do, let's kill all the lawyers."

I seem to recall that Lenin, or some of his followers, had the same idea as Shakespeare.

At last count (*U. S. News & World Report*, December 19, 1983), we have 650,000 licensed

lawyers. We have 172 accredited law schools with 128,000 students and each year we graduate another 35,000 lawyers.

The number has doubled in the last decade.

In 1960, there was one lawyer for each 700 people in the United States. In 1970, one per 600; in 1983, one per 410 and by the mid-nineties, there will be one for every 300 Americans.

In all of Japan, there are fewer than 15,000 lawyers and in England, where the common law was invented, only a fraction of that number.

Then add to the formula the 150,000 new laws passed in the United States each year and consider that each new law requires an average of ten new regulations for implementation.

### **Increasing Litigation**

It is no small wonder that litigation is on the increase and with this many lawyers on move, it will continue to increase. In a recent four year period, civil suits increased 23%. This is 5 to 7 times faster than the increase in population.

This increase has been significant in medical malpractice suits. You have seen it here in Mississippi. Some of you have experienced it first hand.

I take no great pride in these statistics. I personally feel that there are too many lawyers. It results in many "garbage suits" being filed. It burdens the economy. It burdens the courts. It increases the cost of government. I could go on and on but suffice it to say, it increases your statistical chance of being sued.

I tell you this in order that you may reconcile yourselves to this idea and gird yourselves against it.

It may also be helpful if you will put this whole business into perspective.

We have swung from a laissez-faire to a consumer-oriented society. We live in a litigious society. We appear to be heading toward a humanistic socie-

ty — based more on need than right.

It is my hope that if you understand the system, you will be able to cope with it . . . or change it.

And now, a comment about the jury.

It is not likely that you will be tried by your peers. Instead, you will get a cross-section of the electorate. They will bring with them all of their frailties as human beings. Some of them may have developed a dislike for doctors for any one of the many reasons we hear, to-wit: I had to wait too long to see the doctor; the doctor was abrupt or unsympathetic; he charged too much; etc. Hopefully, all will be fair.

So what do we do, you ask.

Well, I suspect that, by now, you are already on the way to a cure.

You have now realized that "malpractice" has not just been invented. It has been around forever. You, as a group, are just now beginning to experience it.

For instance, in the late 1800's, Oliver Wendell Holmes wrote:

The profession has just been startled by a verdict against a physician ruinous in amount — enough to drive many a hard working young practitioner out of house and home — a verdict which leads to the fear that suits for malpractice may take the place of the panel game and child stealing as a means of extorting money. If the profession of this state, which claims a high standard of civilization, is to be crushed and ground beneath the upper millstone of the dearth of educational advantages of the lower millstone of ruinous penalties for what the ignorant ignorantly shall decide to be ignorance, all I can say is God save the Commonwealth of Massachusetts.

So you see, times have really not changed that much.

In closing, I would not leave you without a solution. Try not to practice "legal medicine." Simply practice "good medicine" and document it well.



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## The President Speaking

### Unification

**Ralph L. Brock, M.D.  
McComb, Mississippi**

Most of you know that the Mississippi State Medical Association has adopted a policy of unified membership with the AMA. This will be reflected on the membership dues statement mailed to each member this month.

About 75% of MSMA members currently belong to the AMA. It is to the other 25% and to those who feel this has been "forced upon them" that I direct my remarks. However, everyone needs to be informed of what has happened and why it was done. If you have already decided to keep your membership active, I hope you will help convince those who may be in doubt that we all need to stick together — now more than any other time that any of us can remember!

At the annual meeting last May there was thorough discussion regarding unification at the Reference Committee on Constitution and Bylaws. The MSMA House of Delegates then voted overwhelmingly in favor of unification. This is to be in effect for three years, and the House of Delegates will have to vote again if it is to continue beyond that time.

Some of the immediate benefits that we will get are:

1. Our number of delegates to the AMA will increase from three to five. Two more alternate delegates will be chosen, making a total of ten members from MSMA who will be going to the AMA twice a year.
2. A \$45.00 increase in AMA dues will not apply to us during 1986, which is our first year for unification.
3. We also get a 10% reduction in our AMA dues because we are a unified state.
4. We now have an "ombudsman" at AMA headquarters. This person is Ms. Wende L. Corbett. She will give you personal service in any matters you may have in connection with AMA or its many services and programs. Her number is (312) 645-5323.

I have heard a number of our members who also belonged to AMA for many years say that they feel that unification is "compulsion." Yes, it is, in the same sense that our churches and civic clubs belong to regional or national components. Or in the same sense, we are citizens of our town, county, state and nation.

The federal government funds almost a third of the health expenditures in this country. There must be a broad based national

(Continued on page 298)

## EDITORIALS

# JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION

VOLUME XXVI, NUMBER 10  
OCTOBER 1985

### Evaluate Your Performance In Cancer Awareness Role

Because of events relating to the health of President Reagan, recent public press releases have stressed the importance of early detection of colorectal and skin cancer. We hope this momentum for public education will spread to include all types and locations of malignant diseases. A properly informed patient is better prepared to understand the concepts of early detection, appreciate early cancer symptoms and participate more knowledgeably in treatment decisions and programs.

Concurrently there must be increased awareness of the problem by physicians. We should not be the weak link in the cancer detection chain, therefore, we must THINK CANCER and search for it in the asymptomatic patient, appreciate the significance of early signs and symptoms of cancer, and be informed about the general aspects of current management of various malignancies.

A recent publication by the American Cancer Society, *A Survey of Physicians' Attitudes and Practices in Early Cancer Detection* (Ca. Vol. 35, No. 4, July/August, 1985), deserves the attention and study of all physicians. This report is an analytical review of the "Guidelines for the Cancer Related Checkup: Recommendations and Rationale" published by the American Cancer Society in 1980. They were exactly what the title said, guidelines for use by individual physicians in performing a cancer checkup. While some aspects of the guidelines were controversial and not accepted by all physicians, they provided a good general foundation for the early detection of cancer and were utilized by fifty-nine percent of the physicians surveyed.

Review this article and then critically evaluate your performance in this area. Hopefully it will make you more aware of the cancer problem and stimulate you to THINK CANCER.

MYRON W. LOCKEY, M.D.  
Editor

### Planning Moves Ahead For MSMA IPA/HMO

Whether we choose to recognize it—support it—or oppose it, this nation's health care delivery system is undergoing rapid change. And although Mississippi is as yet relatively untouched, there can be no doubt that change is coming. In fact, there are four so-called "alternative delivery systems" on the drawing board in our state at this time.

At the 1984 Annual Session of the MSMA House of Delegates, action was taken to recognize the inevitability of change in health care delivery and a Committee to Study Alternative Delivery Systems was formed. That committee met, deliberated, and recommended to the House at this year's annual session that the association proceed to implement a physician-directed alternative delivery system. This action particularly recognized the leadership our profession could furnish in providing a model alternative delivery system which, hopefully, others would emulate in this state if they were to be successful.

At its recent August meeting our association's Board of Trustees directed expansion of the Committee on Alternative Delivery Systems to include both geographic and specialty representation from the component societies. The newly expanded committee was also authorized to obtain legal counsel to advise on a plan and organizational structure for implementing a statewide IPA/HMO.

The committee to Study Alternative Delivery Systems will report its findings and recommendations to the Board of Trustees very shortly. Watch your JOURNAL MSMA and *MSMA Report* for further information about this important subject.

ELLIS M. MOFFITT, M.D., Chairman  
Committee to Study Alternative  
Delivery Systems

## THE PRESIDENT SPEAKING

(Continued from page 296)

organization to represent physicians at the federal level. If not the AMA, then who?

Health care in this country is undergoing its most dramatic change in history — a comparison could be made to the industrial revolution this country experienced in the early 1900s. There must be a broad based national organization to speak to the concerns of physicians and to the public interest as this change occurs. If not the AMA, then who?

The future of medical education and medical research in this country will be a large part of the future of the medical profession in the United States. There must be a broad based national organization to represent physicians as issues in medical education and medical research are addressed. If not the AMA, then who?

I wish that each of our members would go to the AMA meetings in June or December of each year. If you went to just one, I think you would be amazed at the size and scope of the issues that are considered at these meetings. There was a time when many of us felt that the AMA did not "represent us" as well as we would like. But today, with rare exceptions, the policies of the AMA and the MSMA are the same.

Installment billing will be available for those who choose this means of payment. You may make divided payments on November 15, 1985, February 1, 1986, and April 15, 1986. With our dues reduction for next year, outlined above, the AMA dues will cost you less than \$1.00 per day.

Why belong to the AMA? No physician can buy such valuable help and influence for the future of our profession and the public's health for so little an amount. And no physician should be riding "free" while their colleagues in the AMA pay the cost and set the course for the future of medical practice.

## COMMENT

(Editor's note: Physician-authored articles describing medical specialties appeared as a special series recently in "The Pulse Beat," newsletter published by Golden Triangle Regional Medical Center. Two authors embellished their articles with poetry, reprinted below. Dr. Robert Dill, an internist, submitted "To Cut or Not." That produced "The Big Split," a rebuttal contributed by Dr. Bill Gates, a urologist. Dr. Gates disclaimed authorship and declared that the author wished to remain anonymous for fear of his life.)

### To Cut or Not

(Submitted by Dr. Robert Dill)

The internist is an enigma.  
One may treat your heart,  
Another order an enema,  
While a third, balm for many a part.

A surgeon is known by all.  
Ask him to cut and he will.  
He makes incisions large and small,  
But much smaller than his bill.

### The Big Split

(Submitted by Dr. Bill Gates)

'Twas a time in medical history when  
the barbers and surgeons split,  
And the surgeons with their usual  
raucous rancor didn't give a twit!

It should be obvious that following  
the breach which was somewhat a revolution,  
The internists have descended through  
what might be called a tonsorial evolution.

Since that moment on, internists and  
surgeons have argued who was in the loftier position,  
Whence cometh the old adage  
"If you don't cut, you're only half a physician!"

P.S.

As the price of cognitive skills  
continues to soar,  
It's hard to tell the difference  
between bills any more!

JOIN TODAY



## MEDICAL ORGANIZATION

### Starkville Pays Tribute To Dr. Feddy Eckford

For the second time in the past 25 years the city of Starkville has held a "Dr. Feddy Day" — the most recent being a tribute to Dr. J. F. "Feddy" Eckford upon his retirement after 58 years of medical practice.

The 87-year-old Starkville native recently remarked upon the "staggering" changes in medicine, including surgical procedures, immunizations and wonder drugs. Another change he has observed is the gradual disappearance of house calls. He estimates that probably 80 percent of his practice, when he began in 1927, was house calls. And he notes that for the first 30 years or so, he received no pay for more than half those patient visits.

Recalling the earliest days of his practice, he said, "Drugs and equipment were very limited, but doctors made themselves available 24 hours a day every day of the week. Then, the practice of medicine depended a lot on art and common sense. Now, medicine is a science based on advanced drugs and specialized equipment."

But changes have not been limited to medical practice alone, he continued. He noted the increase in malpractice lawsuits, particularly nuisance suits, which are a constant source of frustration for doctors and their families.

Dr. Eckford lamented the "increasing exodus on fine physicians from medicine into other types of work" and the loss of "some of the brightest minds of our youth who might normally choose medicine . . . who are going into other fields."

He also predicted another consequence of the malpractice crisis, a risk of decreased access to sophisticated medical care, caused by doctors limiting their practices, particularly in high-risk fields such as obstetrics.

His earliest exposure to medicine (and to house calls in a buggy) was as the son of a physician, Dr. Jim Eckford. The younger Eckford had received a degree in chemistry from Mississippi A&M College in 1920, but at that time hadn't decided to follow in his father's footsteps.

That decision came after one year of duty in the Navy at the end of World War I, followed by another year working for the Bureau of Standards in Washington, DC. He enrolled in the Tulane Uni-

versity School of Medicine in 1922 and received the M.D. in 1926. After completing his internship, he returned to Starkville to practice with his father.

The first "Dr. Feddy Day" was held in 1967. Residents of the Starkville area paid tribute to Eckford for his contributions to the community during the 40 years he had been practicing at the time. In 1972 he received the Golden Deeds Award from the Starkville Exchange Club and in 1975 he was named one of four Outstanding Alumni by the Starkville public schools. He also has been recognized by the American Academy of Family Physicians for his achievement in family medical practice.

Dr. Eckford, a member of Prairie Medical Society, is an emeritus member of the American Medical Association. He is a member of the Starkville Rotary Club, the Chamber of Commerce, and the First United Methodist Church. He and his wife, Nellie, have two daughters and two grandchildren.

### UMC Announces Successful In Vitro Fertilization

Physicians at the University of Mississippi Medical Center have announced the state's first pregnancy from *in vitro* fertilization.

The couple has requested that their identity not be released. The birth is expected in mid-March.

Dr. Bryan Cowan, assistant professor of obstetrics and gynecology, heads the program at the Medical Center under the direction of department chairman Dr. Winfred L. Wiser. He said the pregnancy had been confirmed by a "sensitive blood test" and by ultrasound. The pregnancy resulted from the couple's first attempt, Dr. Cowan said.

The Mississippi program began in February, 1984, and during that first year, the *in vitro* team did 13 procedures. To date, they've done some 30 procedures, and the pregnancy came after 25 attempts. Cowan said that compares favorably with results from other centers.

Currently about 100 centers nationwide carry on *in vitro* programs, and some 350-400 births have resulted.

Members of the *in vitro* team at the Medical Center included Dr. Patricia Norman, assistant professor of anesthesiology, Dr. John Gibson, associate professor of radiology and ultrasound director, Dr. William Bates, professor of obstetrics and gynecology,

Dr. Rodney Meeks, associate professor, Dr. Neil Whitworth, associate professor, Dr. John Lucas, assistant professor, Dr. Victoria Sopelak, assistant professor, *in vitro* specialist Donna Barnes, medical technologist Julie Tomasin, and clinical nurse specialists Gail Cravens and Kathy Gookin.

## UMC Announces Faculty Additions

Seven have been named to the School of Medicine faculty at the University of Mississippi Medical Center for the coming academic session.

The announcements were made by Dr. Norman C. Nelson, vice chancellor for health affairs and medical school dean, following approval by the Board of Trustees, State Institutions of Higher Learning.

Appointed were Dr. Duane E. Haines, professor of anatomy and chairman of the department; Dr. Latha J. Brihmadesan, assistant professor of anesthesiology; Dr. Sheila A. Corrigan, assistant professor of medicine (research); Dr. Reb McMichael, assistant professor of psychiatry and human behavior; Dr. William D. Mustain, assistant professor of surgery (otolaryngology); Dr. Christina G. Puckett, assistant professor of pediatrics; and as visiting professor of physiology and biophysics, Dr. Bahij S. Nuwayhid.

Dr. Haines, former professor of anatomy and associate chairman of the department at West Virginia University School of Medicine in Morgantown, earned the B.A. in 1965 at Greenville College in Greenville, Illinois, and the M.S. in 1967 and the Ph.D. in 1969 at Michigan State University in East Lansing. He was instructor in anatomy at Michigan State from 1968-1969, when he was named assistant professor of anatomy at Virginia Commonwealth University in Richmond. In 1973, he was appointed associate professor of anatomy at West Virginia University School of Medicine, where he was named professor in 1978, and associate chairman in 1982.

Dr. Brihmadesam is a 1971 graduate of the University of Madras. He earned the M.D. in 1976 at Jawaharial Institute of Postgraduate Medical Education and Research, and completed residencies in 1981 at Bay State Medical Center in Boston, and in 1982 at the University of Tennessee. He has been clinical instructor in anesthesiology at Louisiana State University and on the anesthesiology staff at Charity Hospital in New Orleans since 1982.

Dr. Corrigan earned the B.A. in 1978 at State University of New York at Stony Brook, and the

M.A. in 1981 and the Ph.D. in 1985 at the State University of New York at Binghamton. She completed a clinical psychology residency at the Medical Center prior to her UMC appointment.

Dr. McMichael has been a clinical instructor in psychiatry at Harvard Medical School and clinical associate in psychiatry at Massachusetts General Hospital in Boston since 1982. He earned the B.A. in 1974 at Yale College, and the M.D. in 1978 at UMC. He completed his psychiatry residency in 1982 at Massachusetts General Hospital. He also received a master's in theological science in 1985 from Harvard Divinity School.

A 1971 graduate of the College of William and Mary in Williamsburg, Virginia, Dr. Mustain received the master's in education in 1973, and the Ph.D. in 1978, from the University of Virginia at Charlottesville. He taught special education at Gretna Elementary School in Gretna, Virginia, from 1971-1972, and was clinical assistant in the Speech and Hearing Center at the University of Virginia from 1973-1975. In 1976, he was named audiologist for the University of Virginia Hospital in Charlottesville, and the Woodrow Wilson Rehabilitation Center in Fishersville. He was appointed assistant professor of otolaryngology and audiologist for the Communicative Disorders Laboratory at UMC in 1977. He was director of the audiology division at the Center for Communication Disorders at Braintree Hospital in Braintree, Massachusetts, until he was named director of speech and hearing at Lima Memorial Hospital in Lima, Ohio in 1981.

Dr. Puckett attended Goshen College in Goshen, Indiana, and received the B.S. in 1976 from the University of Southern Mississippi. She earned the M.D. degree at the Medical Center, where she completed a residency in pediatrics in 1983. She has been a fellow in neonatology at the University of Texas Medical Center in Austin since 1983.

Dr. Nuwayhid earned the B.S. in 1964 at the American University of Beirut, where he also received the M.D. degree in 1968. He completed his residency in 1972 at Cleveland Metropolitan General Hospital, and held a fellowship in reproductive physiology from 1972-1974 at the University of California in Los Angeles, and in perinatal medicine in 1973 and 1974 at Cleveland Metropolitan General Hospital. He was assistant professor of obstetrics and gynecology from 1974-1976 at the Washington University School of Medicine. In 1980, he was appointed associate professor in obstetrics and gynecology at UCLA, a position he held until coming to the Medical Center in 1983 as senior research associate in physiology and biophysics.

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## RECOLLECTIONS

"There is little wonder that professional liability insurance and the so-called medical malpractice crisis are foremost in the minds of Mississippi physicians at this time." That was the introductory sentence in the president's page article ten years ago in JOURNAL MSMA (October 1975).

Dr. Jack Atkinson, then president, commented on the prospect that the St. Paul Company might cease covering Mississippi physicians, a possibility which had prompted MSMA to call a special session of the House of Delegates later that month to consider the advisability of establishing a self-insured program of professional liability insurance for members. (That program would eventually become a reality. It was first known as the Mississippi Medical Fraternal and Educational Society and later became Medical Assurance Company of Mississippi.)

Dr. Atkinson also urged members to become familiar with the issues surrounding the professional liability insurance crisis to ensure the success of the association's proposed legislative program. The MSMA at that time planned to urge the legislature to enact laws lowering the statue of limitations and establishing screening panels to eliminate non-meritorious litigation.

Twenty years ago, JOURNAL MSMA reported the beginning of a membership drive under the direction of president-elect James Grant Thompson, M.D., and the three vice-presidents, Drs. John G. Egger, Arthur A. Derrick, and Archie C. Hewes. The article noted that MSMA membership had already increased from 855 in 1951 to 1,392 in 1964, a gain of about 64 percent over a decade and a half.

Medical Care for the indigent was in the news in 1965. In the October issue of JOURNAL MSMA, it was reported that the association was taking action to implement policies adopted earlier that year by the House of Delegates. Dr. Everett Crawford, then president, had communicated recommendations to the State Hospital Commission and the Mississippi Hospital Commission. Among other provisions, the MSMA called for strengthened regulations governing eligibility for the existing state program for indigent care and requested that the association be consulted in connection with regulatory policy and administrative procedures.



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## **Medico-Legal Brief**

### **Blue Shield Billing Caps Not Antitrust Violation**

The Blue Shield ban on balance billing did not violate federal antitrust laws, a federal appellate court for Massachusetts ruled.

Under the standard Participating Physicians Agreement with Blue Cross a participating physician promises to accept as payment in full an amount determined by Blue Shield's usual and customary charge method of compensation. Physicians were not permitted to bill patients for any additional sums. In an action against Blue Shield by several physicians, a federal trial court ruled that the ban on balance billing was an unreasonable restraint of trade in violation of federal antitrust laws.

Reversing the trial court's decision, the federal appellate court said that Blue Cross itself was the

purchaser of physicians' services. Even if the company had significant market power, the court said the ban on balance billing would not violate federal antitrust law. There was no law forbidding an insurance company from buying the goods and services needed to make its customers whole. It logically followed that if the company can purchase services for its subscribers, it must be lawful for it to insist that no additional charges be made.

The physicians argued that Blue Shield's ban on balance billing increased its share of the health insurance business thereby enabling it to secure still lower physician prices. The court said that the argument came down to saying that Blue Cross can attract more subscribers because it can charge them less. The court said that lower price is good even if it helped the company maintain its market power through superior skill, foresight, and industry. — *Kartell v. Blue Shield of Massachusetts*, 749 F.2d 922 (C.A.1, Mass., Nov. 28, 1984)

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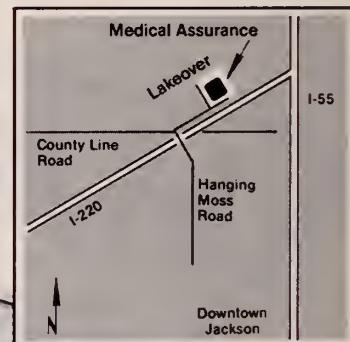
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## PERSONALS

JOHN ABERNETHY of UMC presented a paper at the sixth annual meeting of the Society for Clinical Trials in New Orleans.

JAMES ACHORD of UMC served as chairman of the long range planning committee of the American College of Gastroenterology and was guest speaker at a recent meeting of the American Association for Clinical Chemistry in Atlanta.

WILLIAM M. BARR announces the opening of the Northwest Mississippi Orthopaedic Clinic at 1800 Cheryl Street in Clarksdale.

R. EUGENE BASS announces the establishment of his practice for orthopedic surgery, rehabilitation, and arthroscopic surgery at Mississippi Methodist Hospital and Rehabilitation Center in Jackson.

MARK BEDILLION has associated with the Vicksburg Clinic in the department of anesthesiology.

RICHARD C. BORONOW of Jackson made two presentations at the Alabama Society of Clinical Oncology meeting in Birmingham.

JOHN D. BURK of Tupelo has been elected president of the American Diabetes Association, Mississippi Affiliate.

RICHARD G. BURMAN of Gulfport announces his retirement from the practice of obstetrics and gynecology.

ROBERT W. CALCOTE announces the opening of his office for the practice of dermatology and skin surgery at 2506 Lakeland Building, Suite 305, in Jackson.

DOUG CLARK of Tupelo has been elected president of the Mississippi Radiological Society.

DAVID CRAWFORD of UMC presented an abstract at the 14th International Congress of Chemotherapy in Osaka, Japan.

MELISSA H. DOCKERY announces the opening of her office for the practice of family medicine at 830 Medical Center Drive in West Point.

EDGAR DRAPER of UMC presented a lecture at the University of Michigan in Ann Arbor in August.

DANIEL H. DRAUGHN and CHARLES S. KNIGHT of Jackson announce the association of MITZI FERGUSON for the practice on neonatal-perinatal medicine at Woman's Hospital, 1026 North Flowood Drive.

DAVID N. DUDDLESTON announces the opening of his office for the practice of internal medicine at 1151 North State Street in Jackson.

J. F. ECKFORD of Starkville was honored upon his retirement with a special day of recognition, "Dr. Feddy Day," which was coordinated by the Starkville Area Chamber of Commerce.

OWEN EVANS of UMC lectured at Pineville State School in Pineville, Louisiana, in August.

The Field Clinic announces the association of RICHARD J. FIELD, III, for the practice of general surgery.

H. GREGORY FISER has associated with Mississippi Surgical Group, P.A., 1828 Hospital Drive in Jackson, for the practice of general, abdominal, chest and vascular surgery.

MARY ANN FRANK-TARSI has opened her office for the practice of family medicine in Charleston.

LEE GIFFIN has associated with the Family Medicine Clinic, 1907 Mission 66, in Vicksburg, for the practice of family medicine.

GUY T. GILLESPIE, JR. and VAN L. LACKEY of Jackson announce the association of MACK C. FURR for the practice of hematology and oncology.

JUDY GEARHART of UMC made a presentation at the annual meeting of the Mississippi Academy of Family Physicians in Biloxi.

DINESH K. GOEL announces the opening of his office for general and vascular surgery at 1815 Hospital Drive, Suite 434, in Jackson.

NEY M. GORE, III announces the opening of his office for the practice of internal medicine at 1016-A, 6th Avenue in Picayune.

WOOD HIATT of UMC was host for the second annual Mississippi Conference on Child Abuse in Jackson, has been appointed to the visiting faculty of the University of Mississippi Judicial College, and conducted a recent workshop for trial and appellate judges. He also conducted a seminar on family violence for the U.S. Corps of Engineers in Vicksburg.

RANDY HANKINS and BOB WALKER have associated with the Hazlehurst Clinic for the practice of family medicine.

LUCIEN R. HODGES of Jackson announces the relocation of his practice of neurosurgery to 1600 North State Street.

## PERSONALS/continued

JAMES HUGHES of UMC conducted a continuing education course in Houston, Texas, during August.

BENTON M. HILBUN of Tupelo recently was promoted from clinical instructor of surgery to associate professor of surgery at University Medical Center.

ROBERT B. IRWIN of Tupelo published a scientific article in the July 1985 issue of *The Journal of Allergy and Clinical Immunology*.

SAMUEL JOHNSON of UMC was a site visitor at Texas Tech University School of Medicine in Lubbock.

DANIEL W. JONES announces that his practice will be assumed by CHARLES D. CANNON, JR. at the Internal Medicine Clinic of Laurel.

MARLIN GERALD LOWRIMORE has joined the Hattiesburg Clinic for the practice of cardiology.

C. FOSTER LOWE of McComb has been elected chairman of the Mississippi Emergency Medical Services Advisory Council.

RONALD LUBRITZ of Hattiesburg has been promoted to full clinical professor of medicine (dermatology) at Tulane University School of Medicine.

MICHAEL D. MAPLES has associated with Cardiovascular Surgical Clinic, P.A., 1600 North State Street in Jackson, for the practice of cardiac, thoracic, and vascular surgery.

JUDY L. McDONALD announces the opening of her office for the practice of obstetrics and gynecology at 49 Seargent S. Prentiss Drive in Natchez.

ERIC McVEY of Jackson has been named medical director of Mississippi Baptist Medical Center.

JOHN MORRISON of UMC was program coordinator for an American College of Obstetricians and Gynecologists course on obstetric emergencies in San Francisco.

CHARLES L. NEILL and WALTER R. NEILL announce the association of JOHN C. NEILL for the practice of neurosurgery at 1151 North State Street in Jackson.

PETER H. OOSTWOUDER has opened his office for the practice of family medicine at 206 Pine Street in Heidelberg.

WILLIAM C. PINKSTON and DAVID O. WESTBROOK announce the formation of Jackson Pulmonary Associates and the association of JAMES S. JONES for the practice of pulmonary medicine and critical care.

SESHADRI RAJU of UMC made a presentation at the Mississippi Academy of Family Physicians annual meeting in Biloxi.

RICHARD RUSSELL of New Albany has been recertified by the American Academy of Family Physicians.

CLIFF SEYLER of Pascagoula discussed children and discipline at a workshop co-sponsored by the Mississippi Gulf Coast Mother's Center and the Human Services Department of the Mississippi Gulf Coast Junior College.

CHARLES SIMPSON announces the opening of his practice of general medicine at 130 Fleitas Avenue in Pass Christian.

GLENN NORMAN SMITH has associated with DAVID M. OWEN in the practice of medical oncology and hematology at the Hattiesburg Clinic, 415 South 28th Avenue.

L. DOUGLAS SMITH announces the opening of his office for the practice of ophthalmology at 104 South Wall Street in Natchez

The critical care unit of Tippah County Hospital has been named in honor of ORVILLE P. STONE of Fulton.

BETSY GRIMES TRIGGS has associated with Jackson Pediatric Clinic, 514-D East Woodrow Wilson in Jackson.

LAMAR WEEMS has been appointed to the American Hospital Association's Council on Hospital Medical Staffs. His three-year term begins January 1.

JOHN D. WOFFORD has been elected chief of staff at Doctors Hospital in Jackson. BARRY WHITES has been named chief-elect.

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## NEW MEMBERS

DAVIS, WILLIAM LEE, Louisville. Born Forest, MS, March 13, 1955; M.D., University of Mississippi School of Medicine, Jackson, 1981; interned and internal medicine residency, University Medical Center, Jackson, 1981-84; elected by East Mississippi Medical Society.

HALTOM, JAMES R., Biloxi. Born McComb, MS, Nov. 17, 1953; M.D., University of Mississippi School of Medicine, Jackson, 1979; interned and medicine residency, Vanderbilt University Hospital, Nashville, TN, 1979-83; allergy and immunology residency, National Jewish Hospital, Denver, CO, 1983-85; elected by Coast Counties Medical Society.

RISER, JAMES MATTHEW, Picayune. Born Shreveport, LA, Jan. 8, 1953; M.D., Tulane University School of Medicine, New Orleans, 1980; interned Ochsner Foundation Hospital, New Orleans, one year; elected by Pearl River Medical Society.

WILLIAMS, HOMER, Durant. Born Leesville, LA, March 23, 1956; M.D., University of Mississippi School of Medicine, Jackson, 1982; interned and family practice residency, Forbes Health System, Pittsburgh, PA, 1982-85; elected by North Central Medical Society.

ZEPERNICK, RICHARD G., Bay St. Louis. Born Reading, PA, Aug. 28, 1929; M.D., Tulane University School of Medicine, New Orleans, 1960; interned Southern Baptist Hospital, New Orleans, one year; anesthesiology residency, Charity Hospital, New Orleans, 1961-63; elected by Coast Counties Medical Society.

## POSTGRADUATE CALENDAR

### FUTURE CALENDAR

*November 6*

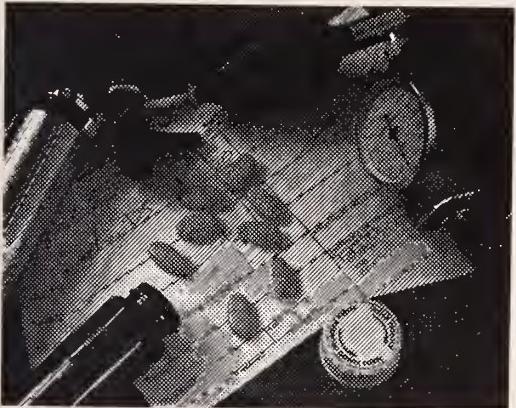
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The Mississippi Disability Determination Services now has a program available for medical society meetings and hospital staff meetings. The purpose of this program is to explain how the disability determination process works, its historical background, its basis in legality and its documentation requirements. Any group interested in this presentation should also contact the Medical Relations Office.

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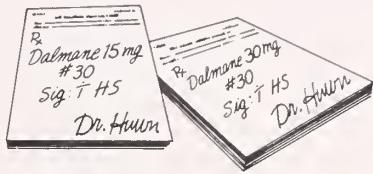
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**Contraindications:** Known hypersensitivity to flurazepam HCl, pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Women patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patients to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

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**Precautions:** In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

**Adverse Reactions:** Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushing, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, e.g., excitement, stimulation and hyperactivity.

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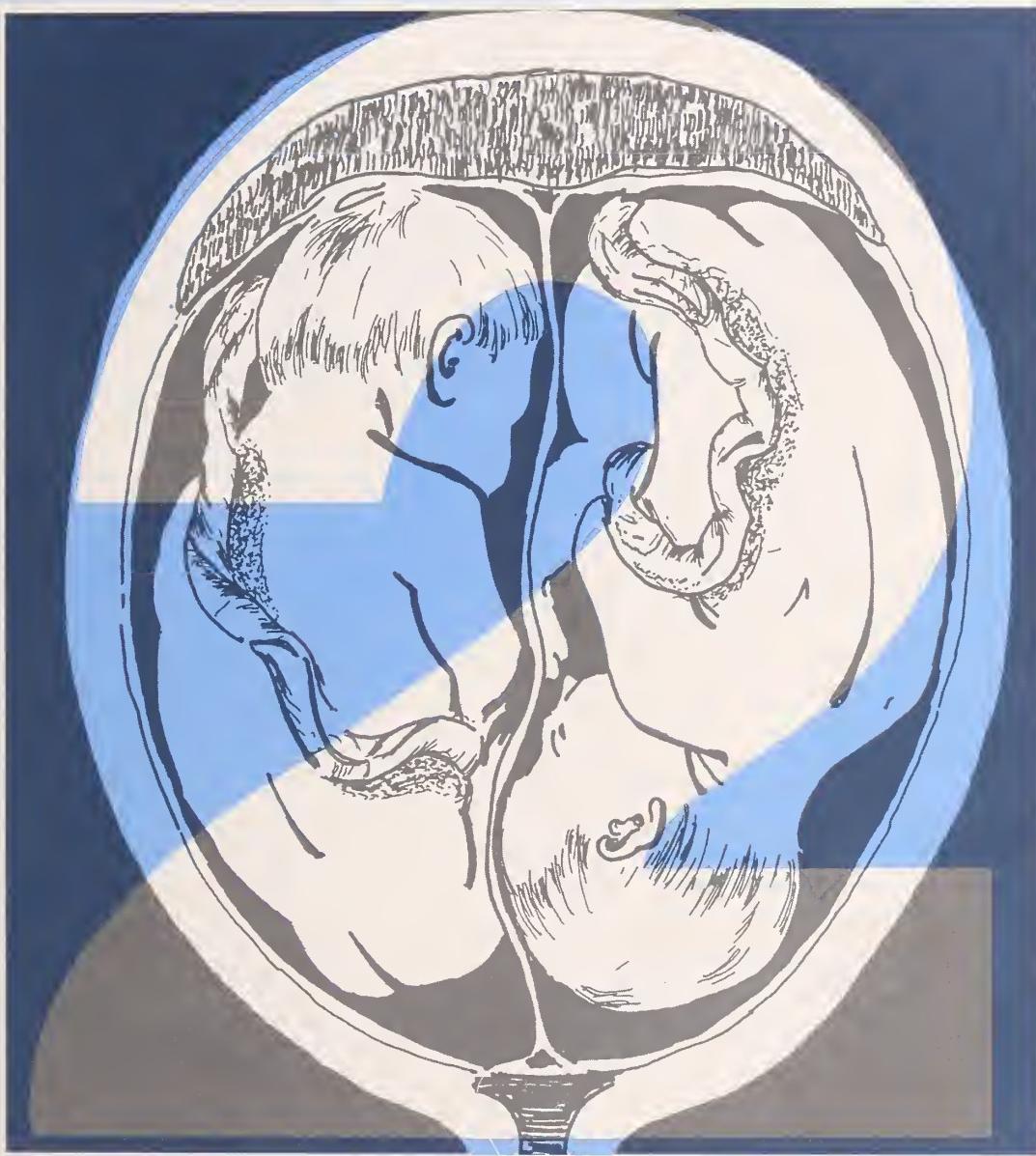
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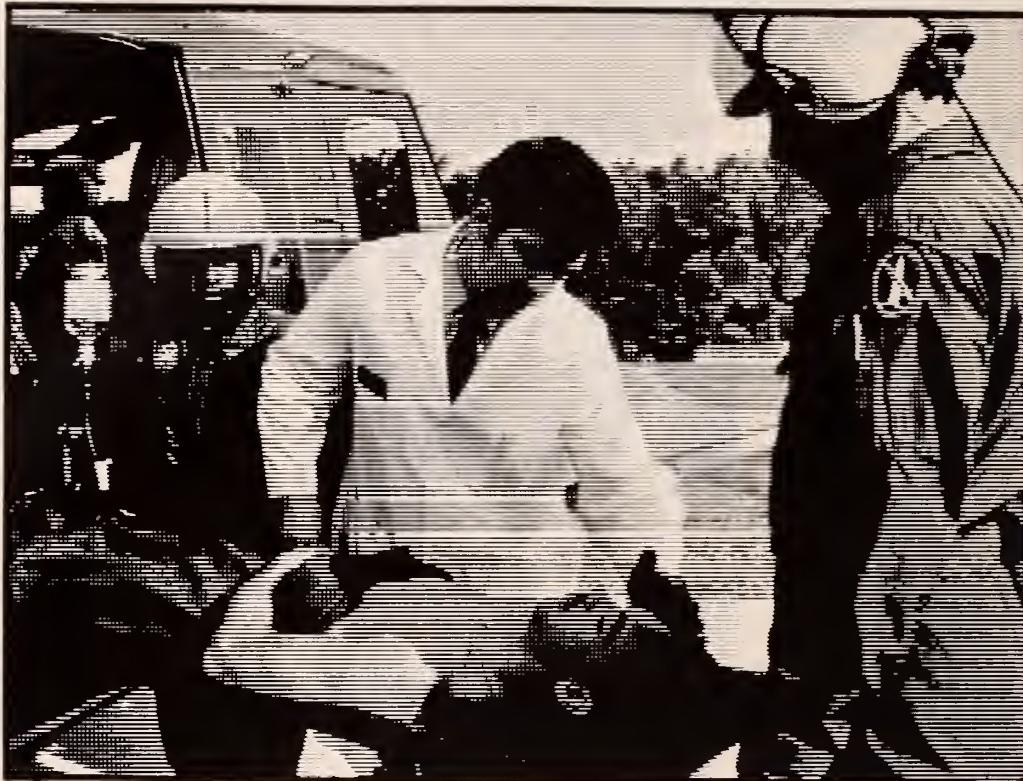
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# NEWSLETTER

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November 1985

Dear Doctor:

Medical doctors trail pharmacists, clergymen and dentists in the public's assessment of ethical standards practiced by various professionals. According to the AMA's recent national survey, pharmacists' ethical standards ranked highest, with 69% of the public regarding them as high or very high. Clergymen were a close second, with 68%. Dentists ranked third, with a 61% rating, followed by physicians (59%) and lawyers (25%).

Data from Mississippi parallel the national results, with 64% of the public regarding pharmacists' ethical standards as high or very high. Next were dentists and clergymen, whose ethical standards were given high marks by 58% of the public. Considerably more Mississippians believe physicians have high ethical standards (56%) than those believing the same about lawyers (29%).

While many Mississippians acknowledge that physicians keep up to date on medical advances (76% agree) and give good advice on nutrition, etc. (86% agree), they express less confidence in matters of fees and time. Only 33% of Mississippians agree that physicians' fees are reasonable, and only 43% agree that physicians spend enough time with patients. Most Mississippians (81%) feel that doctors keep patients waiting too long. An equal number (81%) agree that there is a growing crisis in malpractice suits and awards, reflecting greater understanding of the professional liability situation.

Physicians are invited to describe their experiences, positive or negative, with peer review organizations (PROs) and with the prospective payment system. Written comments should be addressed to either the AMA's PRO Monitoring Project or DRG Monitoring System, P.O. Box 10947, Chicago, IL 60610.

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**CONTRAINDICATIONS:** SORBITRATE is contraindicated in patients who have shown purported hypersensitivity or idiosyncrasy to it or other nitrates or nitrites. Epinephrine and related compounds are ineffective in reversing the severe hypotensive events associated with overdose and are contraindicated in this situation.

**WARNINGS:** The benefits of SORBITRATE during the early days of an acute myocardial infarction have not been established. If one elects to use organic nitrates in early infarction, hemodynamic monitoring and frequent clinical assessment should be used because of the potential deleterious effects of hypotension.

**PRECAUTIONS: General:** Severe hypotensive response, particularly with upright posture, may occur with even small doses of SORBITRATE. The drug should therefore be used with caution in subjects who may have blood volume depletion from diuretic therapy or in subjects who have low systolic blood pressure (e.g., below 90 mmHg). Paradoxical bradycardia and increased angina pectoris may accompany nitrate-induced hypotension. Nitrate therapy may aggravate the angina caused by hypertrophic cardiomyopathy.

Marked symptomatic, orthostatic hypotension has been reported when calcium channel blockers and organic nitrates were used in combination. Dose adjustment of either class of agents may be necessary.

Tolerance to the drug and cross-tolerance to other nitrates and nitrites may occur. Tolerance to the vascular and antianginal effects of isosorbide dinitrate or nitroglycerin has been demonstrated in clinical trials, experience through occupational exposure, and in isolated tissue experiments in the laboratory. The importance of tolerance to the appropriate use of isosorbide dinitrate in the management of patients with angina pectoris has not been determined. However, one clinical trial using treadmill exercise tolerance (as an end point) found an 8-hour duration of action of oral isosorbide dinitrate following the first dose (after a 2-week placebo washout) and only a 2-hour duration of effect of the same dose after 1 week of repetitive dosing at conventional dosing intervals. On the other hand, several trials have been able to differentiate isosorbide dinitrate from placebo after 4 weeks of therapy and, in open trials, an effect seems detectable for as long as several months.

Tolerance clearly occurs in industrial workers continuously exposed to nitroglycerin. Moreover, physical dependence also occurs since chest pain, acute myocardial infarction, and even sudden death have occurred during temporary withdrawal of nitroglycerin from the workers. In clinical trials in angina patients, there are reports of anginal attacks being more easily provoked and of rebound in the hemodynamic effects soon after nitrate withdrawal. The relative importance of these observations to the routine, clinical use of isosorbide dinitrate is not known. However, it seems prudent to gradually withdraw patients from isosorbide dinitrate when the therapy is being terminated, rather than stopping the drug abruptly.

**Information for Patients:** Headache may occur during initial therapy with SORBITRATE. Headache is usually relieved by the use of standard headache remedies or by lowering the dose and tends to disappear after the first week or two of use.

**Drug Interactions:** Alcohol may enhance any marked sensitivity to the hypotensive effect of nitrates.

Isosorbide dinitrate acts directly on vascular smooth muscle; therefore, any other agent that depends on vascular smooth muscle as the final common path can be expected to have decreased or increased effect depending on the agent.

**Carcinogenesis, Mutagenesis, Impairment of Fertility:** No long-term studies in animals have been performed to evaluate the carcinogenic potential of this drug. A modified two-litter reproduction study in rats fed isosorbide dinitrate at 25 or 100 mg/kg/day did not reveal any effects on fertility or gestation or any remarkable gross pathology in any parent or offspring fed isosorbide dinitrate as compared with rats fed a basal-controlled diet.

**Pregnancy Category C:** Isosorbide dinitrate has been shown to cause a dose-related increase in embryotoxicity (increase in mummified pups) in rabbits at oral doses 35 and 150 times the maximum recommended human daily dose. There are no adequate and well controlled studies in pregnant women. SORBITRATE should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

**Nursing Mothers:** It is not known whether this drug is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when SORBITRATE is administered to a nursing woman.

**Pediatric Use:** The safety and effectiveness of SORBITRATE in children has not been established.

**ADVERSE REACTIONS:** Adverse reactions, particularly headache and hypotension, are dose-related. In clinical trials at various doses, the following have been observed:

Headache is the most common (reported incidence varies widely, apparently being dose related, with an average occurrence of about 25%) adverse reaction and may be severe and persistent. Cutaneous vasodilation with flushing may occur. Transient episodes of dizziness and weakness, as well as other signs of cerebral ischemia associated with postural hypotension, may occasionally develop (the incidence of reported symptomatic hypotension ranges from 2% to 36%). An occasional individual will exhibit marked sensitivity to the hypotensive effects of nitrates and severe responses (nausea, vomiting, weakness, restlessness, pallor, perspiration, and collapse) may occur even with the usual therapeutic dose. Drug rash and/or exfoliative dermatitis may occasionally occur. Nausea and vomiting appear to be uncommon. Case reports of clinically significant methemoglobinemia are rare at conventional doses of organic nitrates. The formation of methemoglobin is dose-related and, in the case of genetic abnormalities of hemoglobin that favor methemoglobin formation, even conventional doses of organic nitrate could produce harmful concentrations of methemoglobin.

**DOSAGE AND ADMINISTRATION:** For the treatment of angina pectoris, the usual starting dose for sublingual SORBITRATE is 2.5 to 5 mg; for chewable tablets, 5 mg; for oral (swallowed) tablets, 5 to 20 mg, and for controlled-release forms, 40 mg.

SORBITRATE should be titrated upward until angina is relieved or side effects limit the dose. In ambulatory patients, the magnitude of the incremental dose increase should be guided by measurements of standing blood pressure.

The initial dosage of sublingual or chewable SORBITRATE for prophylactic therapy in angina pectoris patients is generally 5 or 10 mg every 2 to 3 hours. Adequate controlled clinical studies demonstrating the effectiveness of chronic maintenance therapy with these dosage forms have not been reported.

SORBITRATE in oral doses of 10 to 40 mg given every 6 hours or in oral controlled-release doses of 40 to 80 mg given every 8 to 12 hours is generally recommended. The extent to which development of tolerance should modify the dosage program has not been defined. The oral controlled-release forms of isosorbide dinitrate should not be chewed.

**DOSE FORMS AVAILABLE:** Sublingual Tablets (2.5, 5, 10 mg); Chewable Tablets (5, 10 mg); Oral Tablets (5, 10, 20, 30, 40 mg); Sustained Action Tablets (40 mg).



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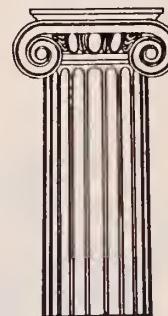
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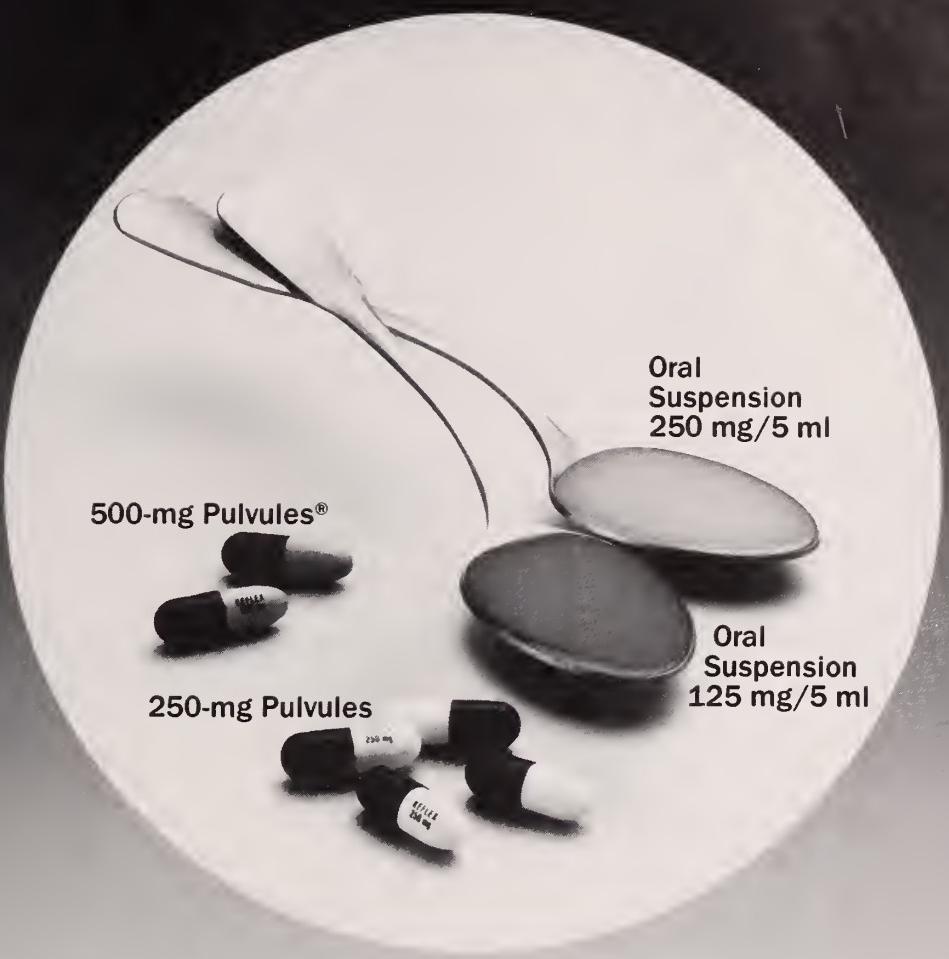
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The controlled-release delivery system of INDERIDE LA provides 24-hour beta blockade and the broad cardiovascular benefits of INDERAL with a single daily dose. Compliance is enhanced because once-daily administration fits easily into patients' daily routines.

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- one of the three most widely prescribed dosage strengths of INDERAL® LA—80 mg, 120 mg, or 160 mg and
- an established, effective daily dose of standard-release hydrochlorothiazide—50 mg

### **New once-daily INDERIDE® LA**

Each capsule contains propranolol HCl (INDERAL® LA),  
80 mg, 120 mg, or 160 mg, and hydrochlorothiazide, 50 mg

**Convenience without compromise**



\*The appearance of INDERIDE® LA Capsules is a registered trademark of Ayerst Laboratories.

Please see following page for brief summary  
of prescribing information.

# Once-daily **INDERIDE® LA**

**Convenience without compromise**  
**One capsule—Once daily**

\* The appearance of these capsules is a registered trademark of Ayerst Laboratories

**BRIEF SUMMARY (FOR FULL PRESCRIBING INFORMATION, SEE PACKAGE CIRCULAR)**  
**INDERIDE® LA Brand of PROPRANOLOL HYDROCHLORIDE (INDERAL® LA) and HYDROCHLOROTHIAZIDE (Long Acting Capsules)**

No. 455—Each Inderide® LA 80/50 Capsule contains	Propranolol hydrochloride (INDERAL® LA)	80 mg
Hydrochlorothiazide		50 mg
No. 457—Each Inderide® LA 120/50 Capsule contains	Propranolol hydrochloride (INDERAL® LA)	120 mg
Hydrochlorothiazide		50 mg
No. 459—Each Inderide® LA 160/50 Capsule contains	Propranolol hydrochloride (INDERAL® LA)	160 mg
Hydrochlorothiazide		50 mg

INDERIDE LA is indicated in the management of hypertension.

This fixed-combination drug is not indicated for initial therapy of hypertension. If the fixed combination represents the dose titrated to the individual patient's needs, therapy with the fixed combination may be more convenient than with the separate components.

**CONTRAINDICATIONS**

**Propranolol hydrochloride (INDERAL®):**

Propranolol is contraindicated in 1) cardiogenic shock, 2) sinus bradycardia and greater than first degree block, 3) bronchial asthma, 4) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythmia treatable with propranolol.

**Hydrochlorothiazide:**

Hydrochlorothiazide is contraindicated in patients with anuria or hypersensitivity to this or other sulfonamide-derived drugs.

**WARNINGS**

**Propranolol hydrochloride (INDERAL®):**

**CARDIAC FAILURE** Sympathetic stimulation may be a vital component supporting circulatory function in patients with congestive heart failure, and its inhibition by beta-blockade may precipitate more severe failure. Although beta-blockers should be avoided in overt congestive heart failure if necessary they can be used with close follow-up in patients with a history of failure who are well compensated, and are receiving digitalis and diuretics. Beta-adrenergic blocking agents do not abolish the inotropic action of digitalis on heart muscle.

**IN PATIENTS WITHOUT A HISTORY OF HEART FAILURE** continued use of beta-blockers can in some cases lead to cardiac failure. Therefore, at the first sign or symptom of heart failure the patient should be digitalized and/or treated with diuretics and the response observed closely or propranolol should be discontinued (gradually if possible).

**IN PATIENTS WITH ANGINA PECTORIS**, there have been reports of exacerbation of angina and in some cases, myocardial infarction, following abrupt discontinuance of propranolol therapy. Therefore, when discontinuance of propranolol is planned, the dosage should be gradually reduced and the patient carefully monitored. In addition, when propranolol is prescribed for angina pectoris, the patients should be cautioned against interruption or cessation of therapy without the physician's advice. If propranolol therapy is interrupted and exacerbation of angina occurs, it usually is advisable to reinstitute propranolol therapy and take other measures appropriate for the management of unstable angina pectoris. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease who are given propranolol for other indications.

**THYROTOXICOSIS** Beta blockade may mask certain clinical signs of hyperthyroidism. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. Propranolol does not distort thyroid function tests.

**IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME**, several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case this resulted after an initial dose of 5 mg propranolol.

**MAJOR SURGERY** The necessity or desirability of withdrawal of beta-blocking therapy prior to major surgery is controversial. It should be noted however that the impaired ability of the heart to respond to reflex adrenergic stimuli may augment the risks of general anesthesia and surgical procedures.

**Nonallergic Bronchospasm (eg, chronic bronchitis, emphysema)**—PATIENTS WITH BRONCHOSPASTIC DISEASES SHOULD, IN GENERAL, NOT RECEIVE BETA BLOCKERS. Inderide should be administered with caution since it may block bronchospasm produced by endogenous and exogenous catecholamine stimulation of beta receptors.

**DIABETES AND HYPOGLYCEMIA** Beta-adrenergic blockade may prevent the appearance of certain premonitory signs and symptoms (pulse rate and pressure changes) of acute hypoglycemia in labile insulin-dependent diabetes. In these patients, it may be more difficult to adjust the dosage of insulin. Hypoglycemic attacks may be accompanied by a precipitous elevation of blood pressure.

**Hydrochlorothiazide:** Thiazides should be used with caution in severe renal disease. In patients with renal disease thiazides may precipitate azotemia. In patients with impaired renal function, cumulative effects of the drug may develop.

Thiazides should also be used with caution in patients with impaired hepatic function or progressive liver disease, since minor alterations of fluid and electrolyte balance may precipitate hepatic coma.

Thiazides may add to or potentiate the action of other antihypertensive drugs. Potentiation occurs with ganglionic or peripheral adrenergic-blocking drugs.

Sensitivity reactions may occur in patients with a history of allergy or bronchial asthma.

The possibility of exacerbation or activation of systemic lupus erythematosus has been reported.

**PRECAUTIONS**

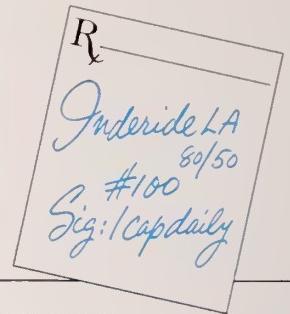
**Propranolol hydrochloride (INDERAL®):**

**GENERAL** Propranolol should be used with caution in patients with impaired hepatic or renal function. Propranolol is not indicated for the treatment of hypertensive emergencies.

Beta-adrenoceptor blockade can cause reduction of intraocular pressure. Patients should be told that propranolol may interfere with the glaucoma screening test. Withdrawal may lead to a return of increased intraocular pressure.

**CLINICAL LABORATORY TESTS** Elevated blood urea levels in patients with severe heart disease elevated serum transaminase alkaline phosphatase, lactate dehydrogenase.

**DRUG INTERACTIONS** Patients receiving catecholamine-depleting drugs such as reserpine, should be closely observed if propranolol is administered. The added catecholamine-blocking action may produce an excessive reduction of resting sympathetic nervous activity, which may result in hypotension, marked bradycardia, vertigo, syncopal attacks, or orthostatic hypotension.



**CARCINOGENESIS, MUTAGENESIS, IMPAIRMENT OF FERTILITY** Long-term studies in animals have been conducted to evaluate toxic effects and carcinogenic potential. In 18-month studies, in both rats and mice, employing doses up to 150 mg/kg/day, there was no evidence of significant drug-induced toxicity. There were no drug-related teratogenic effects at any of the dosage levels. Reproductive studies in animals did not show any impairment of fertility that was attributable to the drug.

**PREGNANCY** Pregnancy Category C. Propranolol has been shown to be embryotoxic in animal studies at doses about 10 times greater than the maximal recommended human dose. There are no adequate and well-controlled studies in pregnant women. Propranolol should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

**NURSING MOTHERS** Propranolol is excreted in human milk. Caution should be exercised when propranolol is administered to a nursing mother.

**PEDIATRIC USE** Safety and effectiveness in children have not been established.

**Hydrochlorothiazide:**

**GENERAL** Periodic determination of serum electrolytes to detect possible electrolyte imbalance should be performed at appropriate intervals.

All patients receiving thiazide therapy should be observed for clinical signs of fluid or electrolyte imbalance, namely, hyponatremia, hypochloremic alkaloasis, and hypokalemia. Serum and urine electrolyte determinations are particularly important when the patient is vomiting excessively or receiving parenteral fluids. Medication such as digitalis may also influence serum electrolytes. Warning signs irrespective of cause are: Dryness of mouth, thirst, weakness, lethargy, drowsiness, restlessness, muscle pains or cramps, muscular fatigue, hypotension, oliguria, tachycardia, and gastrointestinal disturbances such as nausea and vomiting.

Hypokalemia may develop, especially with brisk diuresis when severe cirrhosis is present or during concomitant use of corticosteroids or ACTH.

Interference with adequate oral electrolyte intake will also contribute to hypokalemia. Hypokalemia can sensitize or exaggerate the response of the heart to the toxic effect of digitalis (e.g., increased ventricular irritability). Hypokalemia may be avoided or treated by use of potassium supplements, such as foods with a high potassium content.

Any chloride deficit is generally mild and usually does not require specific treatment except under extraordinary circumstances (as in liver or renal disease). Dilutional hyponatremia may occur in edematous patients in hot weather; appropriate therapy is water restriction rather than administration of salt, except in rare instances when the hyponatremia is life-threatening. In actual salt depletion, appropriate replacement is the therapy of choice.

Hyperuricemia may occur or frank gout may be precipitated in certain patients receiving thiazide therapy.

Insulin requirements in diabetic patients may be increased, decreased, or unchanged. Diabetes mellitus which has been latent may become manifest during thiazide administration. If progressive renal impairment becomes evident, consider withholding or discontinuing diuretic therapy.

Thiazides may decrease serum PBI levels without signs of thyroid disturbance.

Calcium excretion is decreased by thiazides. Pathologic changes in the parathyroid gland with hypercalcemia and hypophosphatemia have been observed in a few patients on prolonged thiazide therapy. The common complications of hyperparathyroidism, such as renal lithiasis, bone resorption, and peptic ulceration have not been seen. Thiazides should be discontinued before carrying out tests for parathyroid function.

**DRUG INTERACTIONS** Thiazide drugs may increase the responsiveness to tubocurarine. The antihypertensive effects of thiazides may be enhanced in the postsympathectomy patient. Thiazides may decrease arterial responsiveness to norepinephrine. This diminution is not sufficient to preclude effectiveness of the pressor agent for therapeutic use.

**PREGNANCY** Pregnancy Category C. Thiazides cross the placental barrier and appear in cord blood. The use of thiazides in pregnancy requires that the anticipated benefit be weighed against possible hazards to the fetus. These hazards include fetal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions which have occurred in the adult.

**NURSING MOTHERS** Thiazides appear in human milk. If use of the drug is deemed essential, the patient should stop nursing.

**PEDIATRIC USE** Safety and effectiveness in children have not been established.

**ADVERSE REACTIONS**

**Propranolol hydrochloride (INDERAL®):**

Most adverse effects have been mild and transient and have rarely required the withdrawal of therapy.

**Cardiovascular** Bradycardia, congestive heart failure, intensification of AV block, hypertension, paresthesia of hands, thrombocytopenic purpura, arterial insufficiency, usually of the Raynaud type.

**Central Nervous System** Lightheadedness, mental depression manifested by insomnia, lassitude, weakness, fatigue, reversible mental depression progressing to catatonia, visual disturbances, hallucinations, an acute reversible syndrome characterized by disorientation for time and place, short-term memory loss, emotional lability, slightly clouded sensorium, and decreased performance on neuropsychometrics.

**Gastrointestinal** Nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic colitis.

**Allergic** Pharyngitis and agranulocytosis, erythematous rash, fever combined with aching and sore throat, laryngospasm and respiratory distress.

**Respiratory** Bronchospasm.

**Hematologic** Agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura.

**Auto-Immune** In extremely rare instances, systemic lupus erythematosus has been reported.

**Miscellaneous** Alopecia, LE-like reactions, psoriasis, rashes, dry eyes, male impotence, and Peyronie's disease have been reported rarely. Oculomucocutaneous reactions involving the skin, serous membranes, and conjunctiva reported for a beta-blocker (practolol) have not been associated with propranolol.

**Hydrochlorothiazide:**

**Gastrointestinal** Anorexia, gastric irritation, nausea, vomiting, cramping, diarrhea, constipation, jaundice (intrahepatic cholestatic jaundice), pancreatitis, sialadenitis.

**Central Nervous System** Dizziness, vertigo, paresthesias, headache, xanthopsia.

**Hematologic** Leukopenia, agranulocytosis, thrombocytopenia, aplastic anemia.

**Cardiovascular** Orthostatic hypotension (which may be aggravated by alcohol, barbiturates, or narcotics).

**Hypersensitivity** Purpura, photosensitivity, rash, urticaria, necrotizing angitis (vasculitis cutaneous vasculitis), fever, respiratory distress including pneumonitis, anaphylactic reactions.

**Other** Hyperglycemia, glycosuria, hyperuricemia, muscle spasm, weakness, restlessness, transient blurred vision.

Whenever adverse reactions are moderate or severe, thiazide dosage should be reduced or therapy withdrawn.

5112/985

# DATELINE

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## Scientific Exhibit Space Available

Jackson, MS - Applications are now being accepted from MSMA members for scientific exhibit space at MSMA's 1986 Annual Session.

The meeting will be held June 4-6 at the Royal d'Iberville Hotel in Biloxi. Applicants should write a letter requesting space, furnishing the title, name of sponsor(s) and the amount of linear feet required for the proposed exhibit.

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## Unified Membership States Increase

Chicago, IL - Utah State Medical Association became the third state association voting this year to unify its membership with that of the AMA, following the Mississippi State Medical Association and Kansas Medical Society. A number of other state associations are considering this membership change. Previously there were two unified membership states, Illinois and Oklahoma.

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## Self-Insurance Is a Growing Trend

Chicago, IL - Percentage of the nation's largest corporations using self-insurance as a way of containing rising health care costs has jumped from 5% to 83% in the past 10 years, the National Center for Policy Analysis reports. As a result of the switch, the market share held by Blue Cross and Blue Shield has dropped from 45% to 35%; the market share held by other insurers dropped from 45% to 27%.

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## Fall Enrollment Totals at UMC

Jackson, MS - Fall enrollment in the School of Medicine at the University of Mississippi Medical Center is 485. Total enrollment for the health sciences campus is 1,638 -- and includes 253 in the School of Nursing, 145 in the School of Dentistry, and 311 in the School of Health Related Professions, with 64 in graduate programs, 344 in postgraduate training, and 36 in certificate programs.

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## Alcohol-Related Fatalities Are Down

Washington, DC - A steady, four-year decline in alcohol-related fatal car crashes may be attributed to several factors, including new laws raising the drinking age, tougher law enforcement, increased public awareness, and changes in alcohol consumption, according to the Insurance Institute for Highway Safety. Alcohol-related motorcycle fatalities, however, have shown a reverse trend, up from 40% to 43%.

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**The UAB Program for In-Vitro Fertilization and Embryo Transfer** offers new techniques for the treatment of infertile couples with tubal absence, tubal disease, endometriosis (non-responsive to therapy), male factor infertility and unexplained infertility.

Specialty Services of the program are:

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- Column Separation (Ericsson method) for sex selection of sperm
- Complete Endocrine Evaluations, including daily estrogen level, urine and serum LH, TSH, FSH, prolactin, and androgen assays
- Laparoscopic Ovum Retrieval with indicated intra-abdominal resection of adhesions and endometriosis by laser technique
- Percutaneous and Transvaginal Ovum Retrieval
- Psychological Support

Most procedures are done on an outpatient basis. A complete evaluation of previous infertility assessment is performed prior to acceptance into the program.

The UAB Program for In-Vitro Fertilization and Embryo Transfer is one of 60 departments, divisions, and centers of the University of Alabama Medical Center accessible to you through the Medical Information Service via Telephone (MIST).

The UAB Program for In-Vitro Fertilization and Embryo Transfer welcomes physician inquiries. To speak with a physician, to consult about a patient, to refer a patient, or to request a patient transfer via the Critical Care Transport Service, telephone MIST.

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# MISSISSIPPI MEDICINE TODAY

## Na<sup>+</sup>-K<sup>+</sup> balancing act

"The sodium-potassium ratio in the diet should be considered a major controlling factor of blood pressure," says Dr. Herbert G. Langford of Jackson's University of Mississippi Medical Center.<sup>1</sup> Among cultures with a low incidence of hypertension, the diet consists of little sodium and large amounts of potassium from fruits and vegetables. As sodium intake increased in modern civilizations, potassium decreased. Dr. Langford thinks that low potassium may be considered an "unindicted co-conspirator in the hypertension crime." And he speculates that "efforts to increase potassium intake may be as feasible and fruitful as efforts to decrease our sodium intake."

## Cartoon classics—help for pain

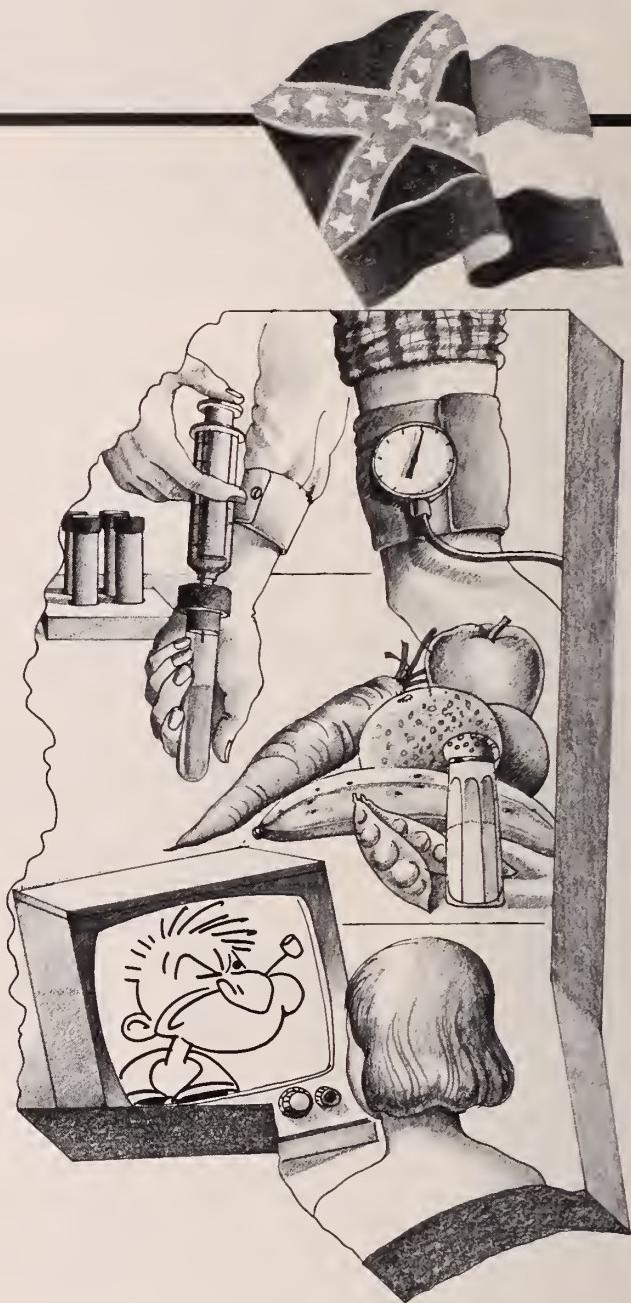
The hospitalized burned child, forced to cope with isolation, immobilization, extreme pain and disfigurement, manifests severe behavior problems during treatment. One of the most difficult management problems is with the child who must endure the excruciating pain involved in the open treatment of burns. The procedure, used for second-degree burns, involves exposure of the wounds, removal of burned skin and daily coverage with antibacterials. In order to avoid treatment, the child may scream, thrash about, cry and complain of pain—which generally worsens with time as nerve endings heal and sensation returns. Even experienced health-care workers have become faint while observing the suffering of these young patients.

Dr. Ronald S. Drabman and his colleagues in the Division of Psychology of the Department of Psychiatry and Human Behavior of the University of Mississippi Medical Center have tested a multicomponent behavioral approach for reducing pain behavior exhibited by severely burned children during the open treatment procedure.<sup>2</sup> The children, two young girls, were asked to choose a television cartoon program, either "Popeye" or "Bugs Bunny," and watch it closely during treatment. If there was a 25% or more reduction in pain behavior from the level at baseline sessions, the child was rewarded with a star placed on her chart. Both children exhibited less pain behavior during experimental sessions than during baseline sessions.

In keeping with ethical considerations and the appropriateness of the children's reaction to pain, the goal of the study was not to suppress or eliminate pain behavior completely. The researchers believe that their successful distraction-and-reward technique, the first experimental evaluation of behavior during open treatment, will point the way to much-needed clinical research in this area.

## 15-minute diagnosis of killer infection

Spontaneous bacterial peritonitis, a common and usually fatal infection among alcoholic cirrhotic patients, can now be



recognized in 15 minutes by means of a simple assay of ascitic fluid. Dr. James L. Achord and his University of Mississippi colleagues routinely screen cirrhotics for high lactic acid. This is more sensitive than conventional WBC counts and avoids many false positives. And, says Dr. Achord, most hospital labs are already equipped to do the test for one dollar.<sup>3</sup>

**References:** 1. Medical News. JAMA 248:2951, Dec 10, 1982. 2. Kelley ML, et al. J Appl Behav Anal 17:147-158, Summer 1984. 3. Medical World News, Nov 22, 1982, p. 15.



# TODAY: FOR THE PATIENT WITH MIXED DEPRESSION AND ANXIETY

A rational approach, combining

- The standard antidepressant:  
amitriptyline
- The proven anxiolytic action of  
Librium® (chlordiazepoxide HCl/Roche) 

Marked improvement often occurs as early as the first week

Headache, insomnia or GI upsets associated with mixed depression and anxiety often respond quickly

Feeling better, patients feel encouraged to stay the course—therefore, fewer dropouts:  $P = .006$  compared to amitriptyline\*

Convenient single h.s. dosing sufficient in some patients; helps patients with mixed depression and anxiety sleep through the night. Patients should be cautioned about the combined effects of Limbitrol with alcohol and other CNS depressants, and about activities requiring complete mental alertness such as operating machinery or driving a car.

In moderate depression and anxiety

IN PLACE OF  
LIMBITROL 5-12.5 WRITE:

**Limbitrol**<sup>®</sup>

Each tablet contains 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)

 IV

IN PLACE OF  
LIMBITROL 10-25 WRITE:

**Limbitrol DS**<sup>®</sup>

Each tablet contains 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt)

 IV

Easier to remember... easier to prescribe

\*Feighner JP, et al: Psychopharmacology 61:217-225, Mar 22, 1979.

Please see summary of product information on following page.

**LIMBITROL®** Tranquillizer-Antidepressant

Before prescribing, please consult complete product information, a summary of which follows:

**Indications:** Relief at moderate to severe depression associated with moderate to severe anxiety.

**Contraindications:** Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use; then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.

**Warnings:** Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses). Myocardial infarction and stroke reported with use of this class of drugs. Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous activities requiring complete mental alertness (e.g., operating machinery, driving).

**Usage in Pregnancy:** Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage; withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).

**Precautions:** Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated; sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.

**Adverse Reactions:** Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs.

**Cardiovascular:** Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.

**Psychiatric:** Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.

**Neurologic:** Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.

**Anticholinergic:** Disturbance of accommodation, paralytic ileus, urinary retention, dilation of urinary tract.

**Allergic:** Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.

**Hematologic:** Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.

**Gastrointestinal:** Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.

**Endocrine:** Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female, elevation and lowering of blood sugar levels, and syndrome of inappropriate ADH (antidiuretic hormone) secretion.

**Other:** Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaudice, alopecia, parotid swelling.

**Overdosage:** Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.

**Dosage:** Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single h.s. dose may suffice for some patients. Lower dosages are recommended for the elderly.

Limbitrol DS (double strength) Tablets, initial dosage of three or four tablets daily in divided doses, increased up to six tablets or decreased to two tablets daily as required. Limbitrol Tablets, initial dosage of three or four tablets daily in divided doses, for patients who do not tolerate higher doses.

**How Supplied:** Double strength (DS) Tablets, white, film-coated, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt), and Tablets, blue, film-coated, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500; Tel-E-Dose® packages of 100; Prescription Paks of 50.



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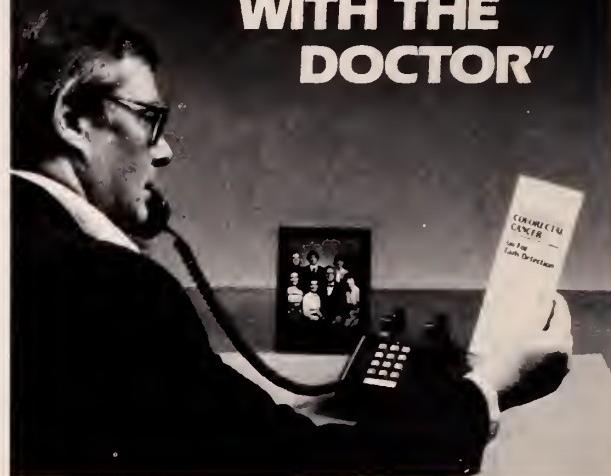
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ORIGINAL PAPERS

# Thoracic Aortic Injury

WILLIAM H. COLTHARP, M.D., MARTIN L. DALTON, M.D., BARRY D. NEWSOM, M.D. and

WILLIAM A. NEELY, M.D.

Jackson, Mississippi

As a result of the high speed methods of transportation man has chosen to employ, thoracic aortic injury is one which the general surgeon can expect to encounter. Low morbidity and mortality can be achieved in this usually fatal injury by prompt diagnosis and expeditious surgical management. This series documents our experience with this injury over the past eleven years.

## Clinical Experience

From January 1, 1974 through December 31, 1984 fifteen patients were seen at the University Medical Center with blunt traumatic thoracic aortic injury. Thirteen patients with acute aortic rupture and two with chronic false aneurysm of the thoracic aorta were seen. Thirteen patients were male, and two were female. Ages ranged from 17 to 78 with a mean of 36 years. Seventy-three percent of the patients were in the second, third, or fourth decade of life. All but one patient was involved in a motor vehicle accident. The remaining patient suffered a severe physical assault three years prior to presenting with a false aneurysm. Physical examination was unremarkable in the two patients with chronic false aneurysm. Five of the thirteen patients with acute aortic injury presented with a systolic blood pressure of less than 90 (see Table 1). However, all stabilized with intravenous fluid resuscitation and remained stable until taken to surgery. Evidence of severe chest trauma (flail chest, palpable rib fracture, diminished heart or breath sounds) was present in six

*The authors report experience during the past eleven years with thoracic aortic injury. Fifteen cases were seen, 13 acute thoracic aortic ruptures, and 2 chronic thoracic aortic false aneurysms after blunt trauma. In each case the diagnosis was made by aortography after abnormal chest x-ray was obtained. Overall mortality was 13%, and incidence of postoperative paraplegia was 7%. The authors note that recent anesthetic advancements can help achieve low morbidity and mortality. The technique of simple aortic cross clamping and repair of the lesion is recommended, and can be performed by the well-trained surgeon in virtually any setting.*

of 13 patients (46%) with acute aortic injury. Two patients had abdominal tenderness requiring laparotomy, and one patient, who was semi-comatose and had gross blood on peritoneal lavage, also underwent laparotomy. Intraabdominal injuries found at laparotomy were splenic fracture, mesenteric rent, and retroperitoneal hematoma (see Table 2). One patient who did not undergo laparotomy at the time of thoracotomy developed abdominal distension on the first postoperative day. Laparotomy revealed a duodenal perforation. He later died of sepsis and renal failure. Other associated injuries include four extremity fractures, one pelvic fracture, one hip dislocation, one severe soft tissue extremity injury re-

From the Thoracic Surgery Service, University Medical Center, Jackson, MS.

quiring amputation of a lower limb, one cervical spine subluxation, and one subdural hematoma.

Chest x-ray was obtained in all patients (see Table 3). Of the 13 patients with acute aortic injuries, a widened mediastinum was initially present in eleven (85%). The remaining two patients developed a widened mediastinum on x-rays obtained on the 14th and 35th hospital day. Five patients had a pneumothorax and/or a hemothorax, and three patients had rib fractures. Of the two patients with false aneurysm, one had a superior mediastinal mass on chest x-ray, and the other had prominence of the aortic knob. Aortography followed the abnormal chest x-rays in all patients. Aortic injury was documented in each patient. Location of injury was immediately distal to the left subclavian artery origin in 14 patients, one of whom also had an intimal tear and false aneurysm of the descending aorta at the level of the eighth thoracic vertebra. The remaining patient had an injury of the aortic root three centimeters distal to the aortic valve (see Table 4).

TABLE 1  
PHYSICAL FINDINGS IN 13 PATIENTS WITH  
ACUTE AORTIC INJURY

Systolic Blood Pressure Less than 90mm Hg	5 (38%)
Evidence of Severe Chest Trauma	6 (46%)
Flail Chest	1 (8%)
Palpable Rib Fractures	2 (15%)
Diminished Breath Sounds	4 (30%)
Distant Heart Sounds	1 (8%)
Abdominal Tenderness	2 (15%)
Positive Peritoneal Lavage	1 (8%)
Extremity Fractures	4 (30%)
Severe Soft Tissue Extremity Injury	1 (8%)

TABLE 2  
MAJOR INJURIES ASSOCIATED WITH AORTIC RUPTURE

Splenic Fracture
Retroduodenal Hematoma
Duodenal Perforation
Small Bowel Perforation
C5-C6 Subluxation
Hip Dislocation
Head Injury
Pelvic Fracture
Extremity Fracture
Renal Failure
Severe Soft Tissue Extremity Injury
Subdural Hematoma

TABLE 3  
CHEST X-RAY FINDINGS

13 Acute Aortic Rupture Patients	
Widened Mediastinum	13
Pneumo and/or Hemothorax	5
Rib Fracture	3
Nasogastric Tube Deviation	1
2 Chronic False Aneurysm Patients	
Superior Mediastinal Mass	1
Aortic Knob Prominence	1

TABLE 4  
POSITION OF INJURY AS DOCUMENTED BY  
AORTOGRAPHY

Just Distal to Left Subclavian Artery Origin	14
Distal Thoracic Aorta	1
Ascending Aorta	1

### Operative Treatment

Repair was performed immediately after diagnosis by aortography in 11 of the 13 patients with acute aortic injury. Repair was delayed one day in the patient whose injury was diagnosed on the 35th hospital day. Repair was delayed two months in the patient with the aortic root injury because of the need for total cardiopulmonary bypass and systemic heparinization in the face of multiple fractures. The two patients with chronic false aneurysm had aortic repair performed electively. Distal circulation protection was employed in 11 patients (73%). Total cardiopulmonary bypass was employed in one patient, partial femoral vein-femoral artery bypass was employed in one patient, and heparinized shunts were used in nine patients (see Table 5). Five of these shunts were aortic arch-left common femoral artery shunts, one was aortic arch-distal thoracic aorta shunt, one shunt was left ventricular-left common femoral artery shunt, and two were left subclavian artery-left common femoral artery shunts. Four patients had no distal circulation protection.

Complete transection of the aorta was found in six patients (see Table 6). Eight patients had partial transection or laceration. One repair was aborted prior to exposure of the aortic injury after a hemopericardium was released because the hematoma around the thoracic aorta was not expanding, and the patient was extremely unstable hemodynamically.

Ten patients had interposition grafts inserted (see Table 7). Three patients underwent debridement and

primary aortic anastomosis. One patient had a patch graft applied to an anterior tear with the posterior wall of the aorta intact.

### Postoperative Course

There were two postoperative deaths (13%), both occurring in patients with acute aortic injury (see Table 8). One patient was a 58-year-old white man who died on the 43rd postoperative day of respiratory failure (ARDS) and a postoperative cerebrovascular accident which was documented by presence of a large infarct on computerized tomography scan. The other death occurred in the 61-year-old man whose aortic repair was aborted because of extreme hemodynamic instability. This patient developed abdominal distension on the first postoperative day requiring laparotomy where duodenal perforation was found. He was anuric prior to his initial surgery, and renal failure persisted. Sepsis ensued after laparotomy, and he died on the 14th postoperative day.

Paraplegia occurred in one patient (7%). Distal circulation protection consisting of aortic arch-left femoral artery heparinized shunt was employed. However, the shunt was found to be nonfunctional midway through the procedure. Because of poor distal aortic flow, a right axillo-femoral extra-anatomic bypass was also performed. Other postoperative complications included hypertension requiring intravenous sodium nitroprusside for control in four patients (26%), adult respiratory distress syndrome and respiratory failure requiring prolonged intubation and tracheostomy in four patients (26%), and acute cholecystitis requiring cholecystectomy in one patient. Two patients sustained a cerebrovascular accident. Left recurrent laryngeal nerve damage occurred in one patient. Neither patient with chronic false aneurysm had significant postoperative morbidity.

### Discussion

Thoracic aortic injury is immediately fatal due to exsanguination in 80%-90% of victims, as Parmley's classic paper<sup>1</sup> revealed. In the remaining patients the hemorrhage is contained in tissue planes in the thorax for uncertain lengths of time. In Parmley's paper 36% of the patients who survived initially died within 48 hours of injury, and 74% died within two weeks of injury. The need for prompt diagnosis and treatment is obvious. Our series illustrates the fact that diagnosis of acute rupture of the aorta can be a difficult one to make. Only 46% of our patients had evidence of severe thoracic trauma on

TABLE 5  
DISTAL CIRCULATION PROTECTION

Total Cardiopulmonary Bypass	1
Partial Femoral Artery-Femoral Vein Bypass	1
Heparinized Shunt	9
Aortic Arch-Left Common Femoral Artery	5
Aortic Arch-Distal Thoracic Aorta	1
Left Ventricular-Left Common Femoral Artery	1
Left Subclavian-Left Common Femoral Artery	1
No Distal Circulation Protection	4

TABLE 6  
OPERATIVE FINDINGS

Complete Aortic Transection	6
Single Aortic Partial Transection or Laceration	7
Multiple Aortic Lacerations	1
Hemopericardium	1

TABLE 7  
TYPE OF REPAIR

Interposition Graft Insertion	10
Debridement and Direct Approximation of Wound Edges	3
Debridement of Wound Edges, Insertion of Patch Graft	1

TABLE 8  
MORBIDITY AND MORTALITY

Deaths	2 (13%)
Paraplegia	1 ( 7%)
Hypertension	4 (26%)
Adult Respiratory Distress Syndrome	4 (26%)
Left Recurrent Laryngeal Nerve Injury	1 ( 7%)
Cerebrovascular Accident	2 (13%)
Cholecystitis	1 ( 7%)

physical examination, and only 60% had more than one associated major injury. The most helpful diagnostic clue was the chest x-ray, which revealed widened mediastinum in all patients with acute aortic injury, 11 on admission chest x-ray and two on subsequent x-rays. Aortography documented presence of the injury in each patient, and should be obtained in all suspected cases.

Chronic false aneurysm following blunt thoracic trauma has been shown to be unstable. Bennett and Cherry<sup>2</sup> reported that 59% of these chronic

## AORTIC INJURIES/Continued

aneurysms were unstable, and that progressive enlargement, increasing symptomatology, infection, and rupture are ever-present dangers in these patients. They recommended elective resection of both symptomatic and asymptomatic aneurysms. Crawford<sup>3</sup> has shown that this can be accomplished with low morbidity and mortality, and our results concur.

As is evident in our series, the method of distal circulation protection in procedures that require aortic cross clamping has undergone an evolutionary process in search of the best method of avoiding postoperative morbidity, specifically paraplegia and renal failure.

Until a few years ago it was thought that distal organ damage was primarily caused by temporary aortic cross clamping with consequent disruption of distal blood flow. Several methods of distal circulation protection were introduced. When Etheredge<sup>4</sup> reported the first successful resection of a thoracoabdominal aneurysm, he employed a polyethylene shunt from the proximal thoracic aorta to abdominal aorta distal to the aneurysm. In 1958 DeBakey<sup>5</sup> reported 36 patients in whom left atrio-femoral artery bypass was used. Paraplegia occurred in two patients (5.5%). Neville<sup>6</sup> reported, also in 1958, eight cases of thoracic aortic operations in which femoral vein-pump oxygenator-femoral artery bypass was used. There were no cases of paraplegia in this group of patients.

The following year Gott<sup>9</sup> recommended a heparinized shunt for distal circulation in cases requiring aortic cross clamping. This eliminated the need for cardiopulmonary bypass and systemic heparinization, which as the authors pointed out, may result in uncontrollable mediastinal hemorrhage after an otherwise successful operative repair, and despite neutralization of heparin with protamine.

However, in 1970, Crawford<sup>3</sup> reported his personal series of 58 patients who underwent thoracic aortic aneurysm repair. He found a higher rate of paraplegia and mortality in patients in whom distal circulation protection was used than in patients who underwent aortic cross clamping and repair without distal organ protection. He suggested that temporary disruption of blood flow is not the most important factor in the occurrence of postoperative paraplegia, but the permanent interruption of spinal cord blood flow by occlusion of intercostal or lumbar arteries caused by extensive dissection and resection was more critical. He also suggested that systemic

hypotension was an important factor. He found that aortic occlusion for a period of up to 46 minutes was well tolerated if hypotension and extensive dissection were avoided.

In an updated review of his personal experience in 1973, Crawford<sup>8</sup> showed that aortic occlusion time was actually greater in the patients who had shunts placed than in the no shunt group. Also, blood replacement averaged almost three times as much in the shunt group as in the no shunt group. Most importantly, both morbidity and mortality were higher in the shunted group than in the non-shunted group. His results with the no shunt technique have been duplicated by Appelbaum.<sup>9</sup>

We have adopted this technique in repairing thoracic aortic injuries. Through a left thoracotomy, we expose the thoracic aortic injury and the hematoma that normally surrounds this injury. We clamp the aorta proximal to the left subclavian artery, which is clamped separately. The aorta distal to the injury is clamped, and the hematoma is opened. If the injury is one amenable to wound edge debridement and approximation of wound edges, this is the repair we employ. However, as our series indicates, one commonly finds an aortic injury that requires resection and insertion of an interposition graft. This is sewn with a running suture of proline at both the proximal and distal anastomoses.

Crawford has also pointed out that advances in anesthetic management have contributed to achieving a low morbidity and mortality rate. Arterial pressure monitoring via a right radial artery line should be employed. The left radial artery should be avoided because of the necessity of clamping the left subclavian artery. A central venous line should be used, and if the patient is critically ill or a significant myocardial contusion is suspected, we insert a Swan-Ganz catheter. Twenty-five grams of mannitol are administered intravenously at the beginning of the operation to aid in diuresis. Sodium nitroprusside is used during the procedure to reduce cardiac afterload after the aortic clamp is applied. Hypotension is avoided by rapid infusion of blood and crystalloid solutions as the aortic clamps are being removed. Also, sodium bicarbonate is infused at this time to counter the relative acidosis that accompanies restoration of normal blood flow distally.

We feel that this technique reduces to its simplest form the repair of a potentially fatal lesion. It avoids cardiopulmonary bypass and systemic heparinization. It avoids time-consuming and cumbersome shunts. It reduces to a minimum the number of operating room personnel and technicians that need

be present. It reduces the magnitude of dissection and time of operation. It reduces to a minimum the amount of blood needed for transfusion. All of these considerations contribute to making a safer, simpler operation that can be carried out by the well-trained surgeon in virtually any setting.

### Conclusions

1. Thoracic aortic injury should be suspected in blunt deceleration injury, and chest x-ray should be obtained in all cases. If chest x-ray reveals a widened mediastinum, aortography should be obtained to document aortic injury.
2. Immediate operation is indicated in cases of acute thoracic aortic injury.
3. Chronic thoracic aortic false aneurysms as a result of blunt trauma are unstable aneurysms and should be repaired electively.
4. The technique of simple aortic cross clamping and expeditious surgical repair of the lesion best avoids postoperative morbidity and mortality.

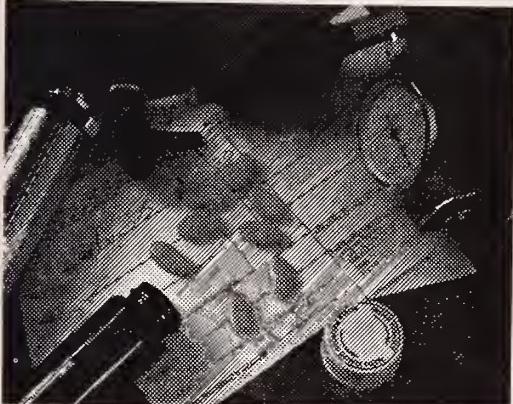


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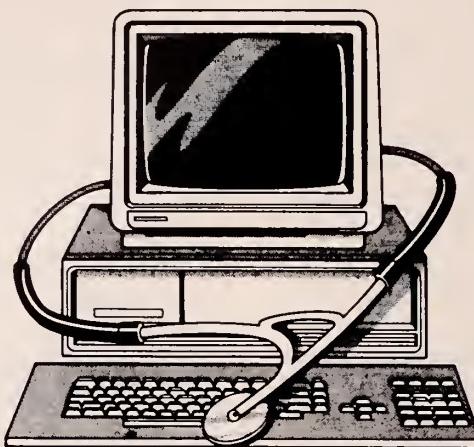
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# Management of Twins

**G. RODNEY MEEKS, M.D., Moderator**

**Jackson, Mississippi**

DR. MEEKS: J. S. was a 35-year-old, gravida 2, para 1 black woman. Her last menstrual period (LMP) was 24 weeks prior to registration. She was having regular cycles and she had been using no contraception for six months before her LMP. The patient experienced quickening approximately 5-6 weeks earlier. Her mother was a twin. Her first pregnancy was uneventful and terminated with a spontaneous delivery of a 3,435 gm male with apgar scores 9/10. The patient stood 65" and weighed 145 pounds. Her blood pressure was 110/70 mm Hg. Her general physical exam was unremarkable. The uterus measured 27 cm above the symphysis (S + 27). Fetal heart tones were audible with the manual fetoscope. The cervix was approximately 2 cm long, firm, posterior and closed. The only significant laboratory data was a hematocrit of 30%. What are your thoughts concerning this woman?

DR. LANGSTON: Establishing the gestational age is critical. The best time, of course, to do this is with registration of the patient. She was seen for the first time later than I recommend. This may make the clinical dating parameters less reliable. I recommend that patients come for their first visit at 8 weeks. One of the most reliable measures of gestational age is the LMP. Keep in mind that the last bleeding may not be menses but bleeding related to implantation. I would determine if quickening were appropriate. For multiparous women, quickening should be about 18 weeks.

DR. SUTHERLAND: At 24 weeks by McDonald's measurements she should have a fundal height of 24 cm; however, she had a 27 cm fundal height. The discrepancy of the fundal height compared with her week's gestation must be resolved. I advocate the use of the centimeter tape to determine fundal height. This is the only way to make a good assessment of uterine size and to accurately determine

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**Panelists:** *LeDon Lanston, M.D., McComb, Mississippi, B. A. "Bo" Marley, M.D., Clarksdale, Mississippi, William K. Sutherland, M.D., Jackson, Mississippi*

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uterine growth from one visit to the next. Many use finger breadths above or below the umbilicus but it is not as reliable as the centimeter measure. The family history of twinning tends to increase her chances of twinning. Auscultation of a fetal heart tones with the fetoscope is a reliable indicator that the patient is at least 20 weeks gestation.

DR. MARLEY: Although most anemia is from iron deficiency, this diagnosis must be confirmed and appropriately treated.

DR. MEEKS: To summarize, the patient has a family history of twins and is black. Clinical parameters would suggest she is beyond 20 weeks gestation and LMP would place her at 24 weeks. She is, however, large for dates by McDonald's Rule. She has mild anemia. What should one consider now?

DR. SUTHERLAND: One always must be alert to the possibility of multiple gestation in a patient with a larger than expected uterus. However, no discrepancy in size is ordinarily present before the twentieth week. It requires a high index of suspicion to confirm the diagnosis.

DR. MEEKS: Is the incidence of twinning different in different racial populations?

DR. MARLEY: In the United States the overall incidence of twins is 1 in 90 pregnancies. In the black population that incidence is 1 in 78 pregnancies and in the oriental population 1 in 150.

DR. MEEKS: How often do you see anemia of pregnancy?

DR. LANGSTON: Anemia in pregnancy is very common. Iron deficiency is most common and twinning definitely increases the iron demands. A trial of

## TWINS/Continued

iron therapy will confirm the diagnosis in addition to being therapeutic.

DR. MEEKS: How should one confirm the diagnosis of twins?

DR. MARLEY: The definitive diagnosis of twins is based on ultrasound examination. A radiograph of the abdomen when the patient is 25-30 weeks pregnant will confirm the diagnosis, if sonography is not available or is questionable.

DR. LANGSTON: Twins were not diagnosed at least half the time prior to the availability of sonography. The second baby was discovered many times after the first was delivered. But certainly I hope we are doing better than 50% now.

DR. MEEKS: How does the diagnosis of twins alter your management of the antenatal period?

DR. MARLEY: Once the diagnosis is made, the patients are seen more frequently, ie every two weeks to watch three different parameters. One is the hemoglobin because women with twins tend to develop anemia more readily than those with a singleton pregnancy. Excessive weight gain, proteinuria and minor blood pressure elevation may herald preeclampsia which is more common with twins. The third is premature labor, which is probably the main cause of the increased perinatal morbidity and mortality with twins. Indeed, as many as 50% of twin gestations deliver before 37 weeks.

DR. SUTHERLAND: Every pregnant woman needs supplemental iron and good nutrition. This is even more important with twins. I do not know how much good bedrest does, but I certainly recommend it. I do not put them in the hospital, but I encourage as much rest as possible between 30 and 34 weeks.

DR. LANGSTON: Multiple gestations are more likely to be growth retarded, and they are likely to have discordant growth patterns. I follow these gestations with sonography to see if they are growing concurrently. A discrepancy of 6 mm or 8 mm in sonographic biparietal diameter indicates intrauterine growth retardation (IUGR). Along with serial sonography, nonstress testing is important. A nonstress test is difficult to obtain on multiple gestations.

DR. MEEKS: The patient had an uneventful antenatal course. Her only complaints were limitations in mobility and shortness of breath due to uterine size. She presented to the delivery suite at 38 weeks gestation, was about 4-5 cm dilated, and was 100% effaced. The membranes were intact. Contractions were occurring every four minutes and

were moderate. What management should be instituted now?

DR. LANGSTON: I would start a large bore intravenous line (IV) with Lactated Ringers solution, and monitor both twins. This can easily be done by rupturing the membranes and placing an internal monitor on twin A and utilizing the external monitor on twin B.

DR. MARLEY: I want to know how the twins are presenting, which usually can be determined by sonography. I also want to have blood available because of the risk of hemorrhage.

DR. SUTHERLAND: I always get a fetogram to confirm fetal lie.

DR. MEEKS: Twin A was a vertex and Twin B was either a breech or a transverse lie based on sonography. Would the presentations alter your management?

DR. MARLEY: I would deliver both twins vaginally as long as the first twin was vertex. If the first twin is breech or transverse, then I would perform a cesarean section.

DR. SUTHERLAND: Even with an abnormal lie of the second twin, the position can change after the delivery of the first twin. What seemed to have the potential for a difficult vaginal delivery might be very easy, so I certainly would agree with waiting for a vaginal delivery. However, everything should be set up to do a cesarean section, including having anesthesia available and having appropriate nursing staff.

DR. LANGSTON: The second twin is at very high risk and should be given an opportunity to be delivered in the most gentle method possible. I perform cesarean section very liberally.

DR. MEEKS: Twin A delivered spontaneously over a second degree episiotomy with local anesthesia. The child was a female with apgar scores 7/8 and weighed 2950 grams. Examination of the second infant revealed an intact bag of waters and a back-up transverse lie. What management would you institute now?

DR. MARLEY: You must continue to monitor the second twin. One must evaluate the cervix because it may contract or become edematous.

DR. MEEKS: How long may the second twin remain in the uterus before delivery, and what type of anesthesia is best?

DR. MARLEY: Anesthesia personnel should be ready to put the patient to sleep at any time for either vaginal delivery of the second twin or emergency cesarean section. If the second twin is vertex you have plenty of time and can wait 20 or 30 minutes for a vaginal delivery, provided that there is no evidence

Before prescribing, see complete prescribing information in SK&F CO. literature or PDR. The following is a brief summary.

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Thiazides may add to or potentiate the action of other antihypertensive drugs.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

**Adverse Reactions:** Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances; postural hypotension (may be aggravated by alcohol, barbiturates, or narcotics). Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and respiratory distress including pneumonitis and pulmonary edema, transient blurred vision, sialadenitis, and vertigo have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components. Rare incidents of acute interstitial nephritis have been reported. Impotence has been reported in a few patients on 'Dyazide', although a causal relationship has not been established.

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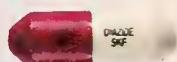
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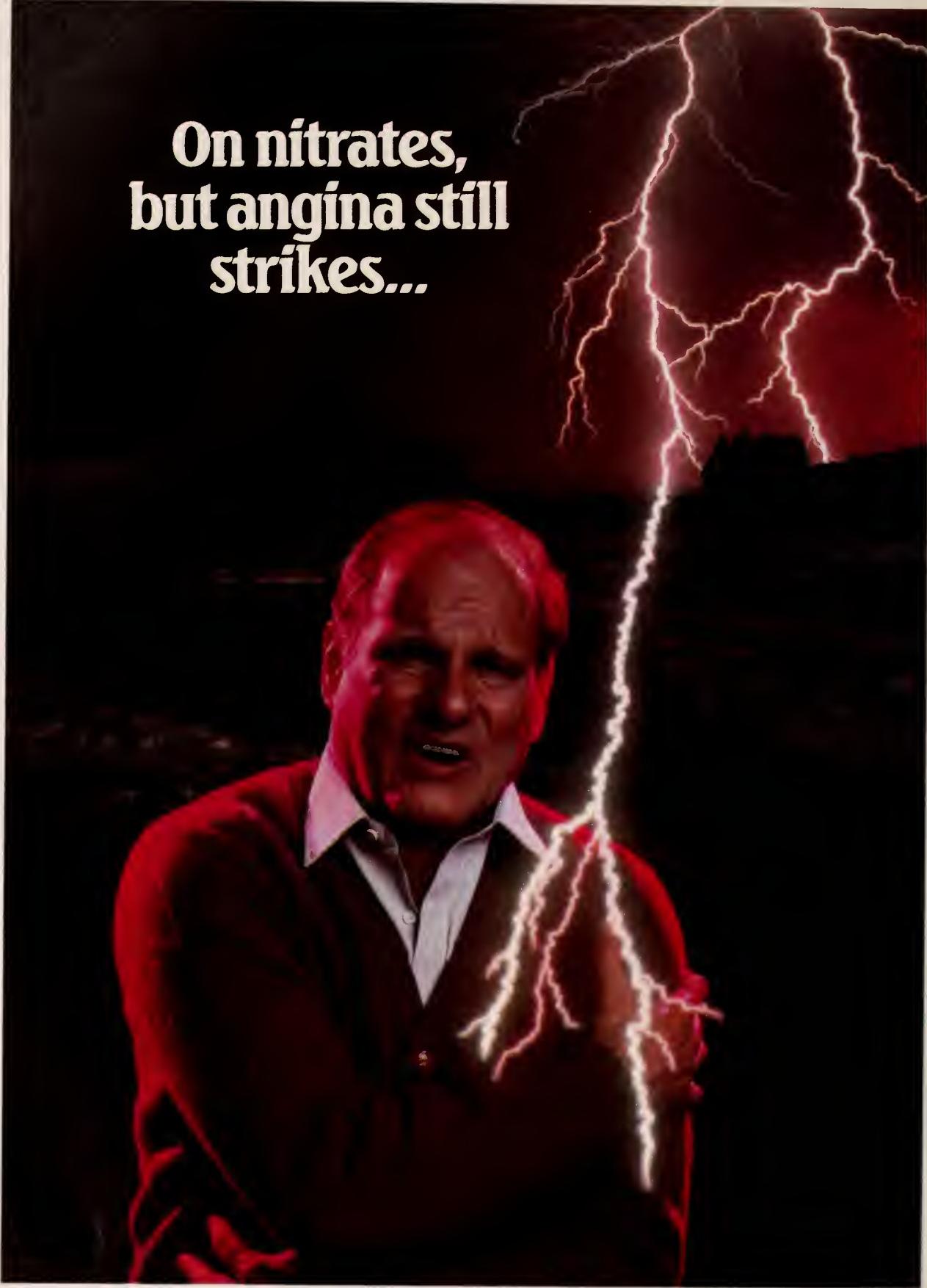
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Elevations of transaminases with and without concomitant elevations in alkaline phosphatase and bilirubin have been reported. Such elevations may disappear even with continued treatment; however, four cases of hepatocellular injury by verapamil have been proven by rechallenge. Periodic monitoring of liver function is prudent during verapamil therapy. Patients with atrial flutter or fibrillation and an accessory AV pathway (e.g. W-P-W or L-G-L syndromes) may develop increased antegrade conduction across the aberrant pathway bypassing the AV node, producing a very rapid ventricular response after receiving ISOPTIN (or digitalis). Treatment is usually D.C.-cardioversion, which has been used safely and effectively after ISOPTIN. Because of verapamil's effect on AV conduction and the SA node, 1° AV block and transient bradycardia may occur. High grade block, however, has been infrequently observed. Marked 1° or progressive 2° or 3° AV block requires a dosage reduction or, rarely, discontinuation and institution of appropriate therapy depending upon the clinical situation. Patients with hypertrophic cardiomyopathy (IHSS) received verapamil in doses up to 720 mg/day. It must be appreciated that this group of patients had a serious disease with a high mortality rate and that most were refractory or intolerant to propranolol. A variety of serious adverse effects were seen in this group of patients including sinus bradycardia, 2° AV block, sinus arrest, pulmonary edema and/or severe hypotension. Most adverse effects responded well to dose reduction and only rarely was verapamil discontinued. **Precautions:** ISOPTIN should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of excessive pharmacologic effects. Studies in a small number of patients suggest that concomitant use of ISOPTIN and beta blockers may be beneficial in patients with chronic stable angina. Combined therapy can also have adverse effects on cardiac function. Therefore, until further studies are completed, ISOPTIN should be used alone, if possible. If combined therapy is used, close surveillance of vital signs and clinical status should be carried out. Combined therapy with ISOPTIN and propranolol should usually be avoided in patients with AV conduction abnormalities and/or depressed left ventricular function. Chronic ISOPTIN treatment increases serum digoxin levels by 50% to 70% during the first week of therapy, which can result in digitalis toxicity. The digoxin dose should be reduced when ISOPTIN is given, and the patients should be carefully monitored to avoid over- or under-digitalization. ISOPTIN may have an additive effect on lowering blood pressure in patients receiving oral antihypertensive agents. Disopyramide should not be given within 48 hours before or 24 hours after ISOPTIN administration. Until further data are obtained, combined ISOPTIN and quinidine therapy in patients with hypertrophic cardiomyopathy should probably be avoided, since significant hypotension may result. Clinical experience with the concomitant use of ISOPTIN and short- and long-acting nitrates suggest beneficial interaction without undesirable drug interactions. Adequate animal carcinogenicity studies have not been performed. One study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. **Pregnancy Category C:** There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor and delivery only if clearly needed. It is not known whether verapamil is excreted in breast milk; therefore, nursing should be discontinued during ISOPTIN use. **Adverse Reactions:** Hypotension (2.9%), peripheral edema (1.7%), AV block: 3rd degree (0.8%), bradycardia: HR < 50/min (1.1%), CHF or pulmonary edema (0.9%), dizziness (3.6%), headache (1.8%), fatigue (1.1%), constipation (6.3%), nausea (1.6%), elevations of liver enzymes have been reported. (See *Warnings*.) The following reactions, reported in less than 0.5%, occurred under circumstances where a causal relationship is not certain: ecchymosis, bruising, gynecomastia, psychotic symptoms, confusion, paresthesia, insomnia, somnolence, equilibrium disorder, blurred vision, syncope, muscle cramp, shakiness, claudication, hair loss, macules, spotty menstruation. **How Supplied:** ISOPTIN (verapamil HCl) is supplied in round, scored, film-coated tablets containing either 80 mg or 120 mg of verapamil hydrochloride and embossed with "ISOPTIN 80" or "ISOPTIN 120" on one side and with "KNOLL" on the reverse side. Revised August, 1984

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of fetal distress. However, if Twin B is a transverse lie or a breech presentation, then you can not wait. While the cervix is still dilated the second baby should be delivered as a breech extraction or podalic version and extraction.

DR. SUTHERLAND: Many of these patients can deliver with saddle block anesthesia as long as the cervix does not contract, but general anesthesia must be available if uterine relaxation is needed. Halothane will completely relax the uterus.

DR. MEEKS: The second twin was delivered by podalic version and extraction under general anesthesia. The second child was a female that weighed 3000 grams and had apgar scores 6/7. What type of incision would you utilize for delivery if cesarean section were indicated?

DR. MARLEY: I use vertical abdominal incisions almost all of the time. I make a decision about the uterine incision after I can evaluate the lower uterine segment.

DR. SUTHERLAND: I evaluate the lower uterine segment. If it seems to be distended and thin, I would do a transverse incision. If the first twin were a transverse lie or footling breech I would make a vertical incision of the uterus.

DR. LANGSTON: With a transverse incision a contraction ring may appear after the first delivery, making it virtually impossible to deliver the others. I would therefore do a low segment vertical incision for all multiple gestations.

DR. MEEKS: What complications may occur following delivery?

DR. SUTHERLAND: Uterine atony and hemorrhage can be serious. For that reason I usually manually remove the placenta, evaluate the integrity of the uterus and make sure the uterus contracts.

DR. MEEKS: If a patient with twins needs to be delivered, but is not in labor, would you consider induction or would you proceed to cesarean section?

DR. MARLEY: If she had a closed thick cervix, I would not hesitate to do a cesarean section. If she were a multiparous patient and dilated 3-4 cm with

an effacing cervix and the presenting part well into the pelvis, I would initiate labor by amniotomy.

DR. MEEKS: If this patient dilated to 6 or 7 cm but had a very dysfunctional or hypotonic labor pattern, would you augment with oxytocin?

DR. SUTHERLAND: If the babies were well monitored, I would augment her.

DR. LANGSTON: I am very hesitant to use pitocin because of the overdistended uterus and possibility of rupture. The longer I deal with multiple gestations the more I tend toward delivering them abdominally rather than vaginally. I still view version of the second twin as a potentially serious problem. I would lean very much toward cesarean section at the slightest element of deviation from a normal labor pattern or normal fetal position.

DR. MEEKS: Multiple gestation remains a significant problem. The patient's family history and race may give the first clue that a patient has twins. The earliest physical examination parameter that would indicate twins is a discrepancy in uterine size when compared to gestational age. Once multiple gestation is suspected, sonography will confirm the diagnosis. Vaginal delivery can be attempted but cesarean section must be utilized liberally. Hemorrhage is perhaps the most serious maternal complication. Starting a large bore IV and having blood available are prophylactic for this problem. Fetal distress and birth trauma are the most serious fetal complications. Fetal monitoring and liberal use of cesarean section will prevent many of these problems. A major problem is the morbidity of the second baby. Give that second baby just as good a chance as the first. This requires liberal use of cesarean section for the second twin. The cesarean section rate necessary to minimize the morbidity and mortality of twins is optimal.

I would like to thank the panelists for taking time out from their practices and sharing their expertise with us.



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# Primary Erythromelalgia Associated With Cerebral Infarctions

DAVID R. THOMAS, M.D.

Jackson, Mississippi

ERYTHROMELALGIA is an unusual disease characterized by intense burning in the lower and/or upper extremities associated with redness and warmth and precipitated by increased skin temperature. Knowledge of the syndrome is limited by an incomplete understanding of the pathogenesis and by few reports of patients with long disease duration. Multiple small cerebral infarcts were found in a woman with a disease duration of 23 years.

## Case Report

The patient first began complaining of episodic symptoms of red, hot and edematous ankles and wrists at the age of eight. Her symptoms were frequently accompanied by fever to 38.8° orally and precipitated by an increase in environmental temperature or prolonged dependent posture. A diagnosis of rheumatic fever was suspected and penicillin prophylaxis was begun. Her symptoms continued unchanged, causing frequent absences from school. She was sent to University Hospital Pediatric Clinic at age 11. Physical examination at that time showed no evidence of cardiovascular or peripheral vascular abnormalities. She was followed yearly and continued to have puzzling symptoms. An endocrinological evaluation for developing obesity was normal at age 14. She continued to have characteristic episodes over the next 15 years despite symptomatic therapy.

At age 30 she was referred to the Lupus Clinic for continued painful lower and upper extremities. Examination showed warm erythematous areas on the legs bilaterally. Peripheral pulses were normal. No abnormal laboratory values were found (see Table I). A diagnosis of Raynaud's phenomenon was suspected.

She experienced two transient episodes of right arm weakness and dysarthria at age 31 and was admitted. Neurological examination was normal at the time of admission and examination of the lower extremities showed warm erythematous areas. A left

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*Erythromelalgia is a distinct clinical syndrome characterized by burning pain, heat and redness in the extremities. In this report, cerebral infarctions occurred in a patient after a disease duration of 23 years. The author states that the proposed pathogenesis of erythromelalgia may predict microvascular infarctions as a complication of primary erythromelalgia.*

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cerebral arteriogram was normal as was two-dimensional echocardiography. An electroencephalogram was considered abnormal but showed no epileptiform activity. Nerve conduction studies of the lower extremities were normal.

Despite a series of trials with aspirin, ephedrine, prasozin, and hydantoin, there was no improvement of her symptoms of erythromelalgia. Her symptoms worsened and were associated with episodic visual blurring, emotional lability and numbness in the right arm. She was readmitted at age 31. At that time, computed axial tomography of the head showed multiple old cerebral infarctions bilaterally. Since discharge, she has improved slightly on aspirin, hydantoin and amitriptyline.

## Discussion

Syndromes of painful extremities with or without skin changes are frequently encountered in clinical practice and represent difficult diagnostic dilemmas. Although the syndrome of erythromelalgia was well-defined, its prevalence is probably under-recognized.

The natural history and pathogenesis of erythromelalgia is little understood. Very few of the patients reported in the literature have had a long duration of symptoms. Sporadic reports have appeared since first described in 1878. Babb et al<sup>1</sup> reported the largest series of 51 patients from 1951 to 1960, most of whom had symptoms from 1 to 3 years. Patients were divided into a primary group of

From the Department of Medicine, University of Mississippi Medical Center, Jackson, MS.

TABLE I  
SELECTED NORMAL LABORATORY DATA

	<i>First Admission</i>	<i>Second Admission</i>
Hemoglobin	14.9 gm/100ml	14.5 gm/100ml
Hematocrit	43.8 percent	45 percent
RBC	4.83 mill/cmm	4.68 mill/cmm
WBC	10,700/cmm	9,400/cmm
Platelet count	342 thou/cmm	350 thou/cmm
sed rate	20 mm/hr	18 mm/hr
glucose	92 mg/dl	129 mg/dl
BUN	12 mg/dl	14 mg/dl
creatinine	1.0 mg/100 ml	0.9 mg/100 ml
albumin	4.6 gm/dl	4.1 gm/dl
globulin	2.6 gm/dl	2.4 gm/dl
uric acid	4.2 mg/cl	4.7 mg/dl
VDRL	non-reactive	
ANA	negative	
anti-native DNA	0.8 gm/ml (0-1.4)	
latex agglutination	negative	
protein electrophoresis	normal	
CH <sub>50</sub>	210 (150-200)	
cryoglobulins	1200 ng/ml	

cluded by multisystem evaluation and follow-up period of 23 years. The long duration of symptoms and period of observation is unusual. If platelet aggregation and thrombus formation occurs as a mediator of this condition, microvascular infarctions may be a predictable complication of primary erythromelalgia, as occurred in this patient. ★★★

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## Summary

This case presents a woman with primary erythromelalgia in which cerebral infarction occurred. Secondary erythromelalgia seems to have been ex-

# Sleep Complaints Should Not Be Taken Lightly

LAWRENCE S. SCHOEN, Ph.D.

BARRY AMYX, M.D.

Jackson, Mississippi

DIFFICULTY SLEEPING is experienced by practically everyone at one time or another, and survey data show that up to one-third of the general adult population suffers currently from some form of sleep disturbance.<sup>1-4</sup> This finding is reflected in the observation that a considerable number of patients complain to their physician about the inadequacy of their sleep. Unfortunately, the source of their sleep complaint is not usually investigated thoroughly and hypnotic or stimulant medications are often prescribed. If no prescription medicines are provided, the patient is quite likely to treat himself. Indeed, it is estimated that 10% of patients with sleeping difficulties use some form of over the counter preparation to help themselves sleep.<sup>2</sup> Both of these approaches, for the most part, provides only temporary relief at best and may actually endanger the patient's health at worst.

The health care professional can appreciate that a patient's sleep complaint deserves further scrutiny when he or she realizes that the sleep/wake cycle is governed by endogenous biological clocks that cycle normally within a 24 hour period. Internal or external factors can disrupt these normal circadian oscillators, resulting in symptoms of either sleeping too much or sleeping too little. While these symptoms are often considered benign, research has shown that significantly higher mortality rates are associated with either sleeping more than 7-9 hours or less than 7 hours within a 24 hour day.<sup>5</sup> It is not likely that increased mortality is directly caused by the length of sleep per se. Rather, mortality is likely affected by whatever is causing the duration of sleep to deviate from the optimal range. It is most important, therefore, that prior to treating a sleep disorder, the underlying source of the disturbance be identified in the complaining patient.

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*Sleep disorders are due to various physiological, psychological, and environmental factors, according to the authors. They note that some sleep disturbances can be identified from subjective complaints and a detailed sleep history, but others require a more extensive and objective diagnostic workup. They emphasize the importance of thoroughly investigating sleep complaints before treatment.*

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In 1979 the Association of Sleep Disorders Centers published the Diagnostic Classification of Sleep and Arousal Disorders.<sup>6</sup> In this diagnostic system, disturbances of sleep are separated into four major categories; (1) disorders of initiating and maintaining sleep (DIMS), (2) disorders of excessive somnolence (DOES), (3) disorders of the sleep/wake schedule, and (4) dysfunctions associated with sleep, sleep stages, or partial arousals (parasomnias). Within each of these categories are numerous causes for the specific sleep disturbance. Some of these causes can be identified with a careful medical and sleep history. However, others require evaluation at a Sleep Disorders Center such as the one at the University Medical Center in Jackson. It is important that the physician appreciate the seriousness of the sleep disorder complaint and is aware that specific evaluation can aid treatment decisions. As an introduction to such an appreciation, a general description of the major categories of sleep disturbance and a brief discussion of possible etiologies are presented.

## DIMS

Disorders of initiating and maintaining sleep (the insomnias) are the most prevalent sleep disturbances. They are characterized by a subjective com-

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From the Division of Somnology, Department of Psychiatry and Human Behavior, University Medical Center, Jackson, MS.

plaint of difficulty falling asleep, maintaining sleep throughout the night, or early morning awakenings. DIMS are considered to be symptomatic of some underlying physical or psychological disturbance. Thus, proper identification of the cause of the sleep complaint is essential to proper treatment. Insomnia can be either transient or persistent. If transient, it is likely to be caused by situational factors, which result either in temporary emotional arousal or a short-term disruption of the sleep/wake schedule relative to the demands of an individual's biological clock.

Transient insomnias are best treated by improving sleep hygiene or with judicious and short-term use of hypnotic medications. If the insomnia has lasted for more than three weeks, however, other factors are likely involved in its etiology. These can include, in order of prevalence:<sup>7</sup> psychiatric disturbances, psychophysiological disorders, drug and alcohol difficulties, nocturnal myoclonus and/or restless leg syndrome, sleep apnea syndrome, and other medical disturbances.

Treatment of persistent insomnia should be directed at the underlying cause in order to avoid exacerbating the disturbance or possibly endangering the patient's health. For instance, prescribing a hypnotic to a patient whose insomnia is due to sleep apnea may actually worsen the condition and put the individual at risk of experiencing dangerous blood oxygen desaturation and cardiopulmonary difficulties.

## DOES

While they do not comprise the most prevalent sleep disturbances in the general population, disorders of excessive somnolence are the type most frequently seen in sleep disorders centers. The patient's usual presenting complaint is diurnal sleepiness which is neither desirable nor appropriate. Individuals with a DOES complaint often report falling asleep while eating, driving, watching television, while engaged in conversations, and, in extreme instances, while engaged in sexual activities.

Patients with a chronic DOES complaint are often found, when first seen at the Sleep Disorders Center, to be taking stimulant medications. However, prescribing a stimulant to counteract daytime sleepiness is often inappropriate since the major cause of excessive daytime sleepiness is sleep apnea. There are three forms of sleep apnea; central, obstructive, and mixed. In central sleep apnea there is a periodic cessation of respiratory effort during sleep. Obstruc-

tive sleep apnea is characterized by the absence of airflow secondary to loss of upper airway patency, despite the persistence of respiratory effort. Mixed apnea includes both central and obstructive components. Obstructive sleep apnea is most often associated with daytime sleepiness. During apnea events there often is a profound drop in arterial oxygen saturation. Cardiac irregularities including sinus bradycardia, A-V block, PVC's and asystoles also occur; as do arousals from sleep coincident with resumption of airflow. The severe sleep apneic may have hundreds of apnea episodes during the night which severely disrupts his/her sleep. A report of snoring can be the most important clue as to the presence of obstructive sleep apnea in a particular patient. However, a sleep laboratory evaluation is essential not only to objectively identify the disorder, but also to assess the degree of associated cardiovascular and hemodynamic pathology. Furthermore, the evaluation helps the physician in deciding which treatment, surgical, medical or behavioral, would be the most appropriate.

The second most likely cause of excessive daytime sleepiness is narcolepsy. This is a life-long disorder, often beginning in the teens. Inappropriate daytime sleep attacks characterize this disorder. The second most frequent symptom of this illness is cataplexy. This is a state of muscle paralysis, ranging from atonia of the facial muscles to complete paralysis of the antigravity musculature. These attacks are usually precipitated by emotional arousal such as fear, anger, anxiety, excitement or laughter. Although muscle atonia is often complete, the patient remains fully conscious. Occasionally, cataplexy may lead directly into a sleep attack. Other symptoms of narcolepsy include sleep paralysis and hypnagogic hallucinations. It is believed generally that the symptoms of narcolepsy represent intrusions of rapid eye movement (REM) sleep into wakefulness. Treatment, therefore, may involve not only stimulants to combat sleepiness but also REM suppressant medications to ameliorate the other symptoms. Again, an evaluation in a sleep disorders center is essential to determine the severity of the illness, to objectify the presence of the ancillary symptoms, and to direct proper treatment.

Other causes of DOES include, but are not limited to, periodic leg movements during sleep, psychiatric disorders, medical, toxic, and environmental conditions, drug and alcohol abuse, and psychophysiological factors. Given the number of conditions which can cause a DOES complaint, the differential diagnosis is best performed when the results of nocturnal sleep evaluations are obtained.

## **Disorders of the Sleep/Wake Schedule**

The major complaint of an individual suffering from a sleep/wake schedule disturbance disorder is that the patient cannot fall asleep nor stay asleep when he/she desires. The patient might be wide awake at night yet be able to sleep soundly during the day. He or she might have difficulty initiating sleep at night in conjunction with problems awakening in the morning or, on the other hand, the patient might have no trouble getting to sleep but finds that he/she awakens early in the morning. Often these problems occur because the patient's endogenous sleep/wake cycle is not synchronized with external time cues. This can be a transient problem as might occur following transmeridian flights, or else the problem might be persistent.

The major causes of a persistent sleep/wake schedule disturbance are frequently changing work shifts and the delayed sleep phase syndrome. In this latter condition the individual's sleep/wake cycle is delayed relative to clock time. When it is time for sleep, according to the clock, the patient might still be in the waking phase of his/her circadian cycle which causes difficulty initiating sleep. When it is time to wake up, the patient is then in the sleepy phase of the circadian cycle which results in difficulty arousing from sleep. This disorder is easily identified in the sleep laboratory and, with the help of sleep specialists, the biological clocks can be reset.

## **Other Dysfunctions**

This class of disorders include inappropriate behaviors or processes which are worsened by sleep or occur only in sleep. Examples of phenomena which can be worsened by sleep include sleep related seizures, painful erections, cluster headaches, asthma, gastroesophageal reflux, and sleep related hemolysis. Behaviors which occur only in sleep include somnambulism, enuresis, night terrors, dream anxiety attacks, and bruxism. Each disturbance can be evaluated in a sleep disorders center and appropriate treatment can then be formulated.

## **Summary**

Clearly, the possible causes of sleep disturbance are numerous and are due to various physiological, psychological, and environmental factors. While some sleep disturbances such as transient insomnias can be identified from subjective complaints and a carefully detailed sleep history, others require a more extensive and objective diagnostic workup. Sleep disorders centers staffed by sleep specialists are uniquely qualified and equipped to monitor the various electrophysiological parameters, during a full night of sleep, which are essential to diagnosing properly the complaint of a sleep disturbance. Through the use of a sleep evaluation, the cause of the disorder can often be identified and an appropriate treatment regimen can be suggested to either the patient or primary care physician.

★★★

2500 North State Street (39216)

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## The President Speaking

### A Letter to Dad

Ralph L. Brock, M.D.  
McComb, Mississippi

Dear Dad,

The practice of medicine is in deep trouble. Public confidence that you and your generation worked so hard to build up is at a very low point. Everything around us has changed so drastically since the last time we talked a little over 20 years ago.

There has been marked improvement in diagnostic and therapeutic methods. The fact that it has come so fast may be part of the problem. Along with improvement has come cost — has it ever increased! I won't bother to tell you the going rate for common surgical procedures or what I charge for an office visit — you wouldn't believe it anyway.

Government programs dictate much of what we try to do for our patients. Hospitals are struggling to keep afloat to put pressure on us as medical staff members. Big corporations have large chains of for-profit hospitals, and if we are not careful, they will have most physicians signed up as employees in the not-so-distant future. Insurance companies have joined with the others in offering new and innovative ways to guarantee payment for health care.

Malpractice lawsuits are being filed right and left. Again you would not believe the awards being given or the premiums being charged. Patients used to trust and believe what the doctor told them. Now, anything less than a perfect result or a perfect baby, to a large portion of the general public, means that someone made a mistake. They are encouraged to file a lawsuit to make someone pay.

You and I have always looked to the State Medical Association and the AMA for leadership and kept our membership in both. I won't try to explain it now, but in 1972 membership in the AMA became optional for MSMA members. Beginning in 1986 Mississippi will be a unified state with the AMA. This means, to belong to MSMA you must also belong to the AMA. I have decided to continue my membership, but I need some good selling points to answer those that may be thinking of dropping out.

I remember your favorite statement when a bleeder got loose during surgery. You would stop and say: "let's get organized," and everyone started working as a team.

If we ever need to be organized it is now. We just have too many

(Continued on page 327)

## EDITORIALS

# JOURNAL OF THE MISSISSIPPI STATE MEDICAL ASSOCIATION

VOLUME XXVI, Number 11  
NOVEMBER 1985

### Vale, Virginia

I was alone and early, so I parked across from the church and waited. The air was humid and heavy—not hot yet, but you knew it soon would be, even in the shade of the magnolia tree.

Savoring the small-town ambience, I watched the dribbles of people drawn by respect, admiration and appreciation just as I was. This fallen lady and I shared many common interests for a good many years, as the hollow feeling in my chest kept reminding me. Soon to be interred in the black richness of her beloved Delta, she had taught us all the true meaning of "a job well done!"

By this time I am convinced that St. Peter has her on the steering committee up there, and I feel sure that the heavenly milieu will be a better place. Ours sure is!

ARTHUR A. DERRICK, JR., M.D.  
Associate Editor

### THE PRESIDENT SPEAKING

(Continued from page 326)

things coming at us from too many directions at the same time for anyone to try to go it alone.

I've tried to consider several options:

1. I could drop out and let others carry the load. I guess I could try to forget how important the MSMA was in keeping the medical school open where I started my training, or forget the part AMA does in setting standards for quality medical education.

2. I could pull out and join another group, but no one else has the years of experience, organization

and financial backing of the MSMA and AMA.

3. I could rationalize that all I need is my specialty society, but most of our problems affect all specialties, and all of these are represented in the AMA House of Delegates.

4. I could use the excuse that there are things in the MSMA or AMA that I don't like. That's nothing new. There is always something that I don't like in every organization I've been in.

American medicine is at its Waterloo. Whether we like it, disagree with it—or just don't care—the health care system is undergoing a complete restructure. And although Mississippi is relatively untouched at this time, change is on the way whether we act to direct it or sit and watch it.

You remember how regulations forced us to close our nursing school. That's nothing compared to the rules, regulations and guidelines we have to put up with now.

There is a long list of folks standing in line trying to get a slice of our pie. Our most prominent enemies are: Hospitals, Insurance Companies, and Big Business. Many people are predicting that if the medical profession doesn't stick together and fight back we will be the same as employees of 10 to 20 large corporations in the next 5 to 10 years.

We have a chance to do something, but we are going to need widespread cooperation and support in the state and nationwide. This is one of the reasons I am glad the MSMA voted to become unified with the AMA.

I hear so many speak of their rights, freedom to choose and privileges to do different things that affect the way we practice. I think they may need to be reminded that we wouldn't have these rights and privileges if the early Americans had not gotten together, organized themselves and stuck together.

I realize some will continue their membership just

to be able to keep their liability insurance with the MSMA-sponsored Medical Assurance Company.

Some will want to continue disability and hospital insurance presently held with MSMA or AMA.

Some will want to see what the proposed HMO-IPA project is going to do and be able to join.

I hope many, like me, will continue their membership simply because it is our best option in these rapidly changing times. To paraphrase a popular expression being used to promote the use of automobile seatbelts — "Let's get it together, JOIN UP." Thanks for listening.

Love,

Ralph

## COMMENT

### Where Have All The Women Gone??

In the past 35 years the percentage of all physicians who are women has increased from 7% in 1950 to the current level of 30%. But, had there been a female physician caucus down on Biloxi beach at the Mississippi State Medical meeting in May, we could have filibustered in the back seat of a Volkswagen Rabbit. I had the pleasure of meeting a total of four other women delegates there. So — why were we outnumbered 100-1 instead of the anticipated 3-1?

Why do women physicians seem so reluctant to join organized medicine or assume leadership roles? It seems that some women physicians view medical organizations as social clubs for "Good-ole Boys."

Perhaps this is so, but how will staying in this self-inflicted isolation help remedy the situation?

Some women cite lack of time as a reason for not getting involved. It's true that some 85% of women physicians are married to other physicians and professional men, and it's also true that in these two-career marriages women still continue to assume the major burden of responsibility for home and family care. Each of us, male and female alike, has the same 24 hours allotted to our day and we do in that time span what we feel is most important to us.

Another lame excuse often given for our lack of involvement is "a lack of opportunity" — failure to be included in or welcomed at organized medicine activities. This is simply not the case.

According to Resolution #6, there is "an urgent need to increase the membership of the Mississippi State Medical Association." Bearing in mind the scarcity of women physicians in organized medicine, as recently evidenced at the 117th annual session, would it not therefore be logical for the new membership committee to "start chasing some skirts?"

There must be a commitment to encourage participation of women in all levels in all our activities. That encouragement must come from our entire membership if organized medicine is to survive the future.

Since there are currently so few women members of the Mississippi State Medical Association, most of them will neither be receiving this journal nor reading this article unless some of you fellows help out. So tear out this page and send it to your favorite non-member lady doc. Remember, if we don't all hang together, we will surely all hang separately.

DWALIA SOUTH, M.D., President  
North Mississippi Medical Society

**Mark Your Calendar NOW!**  
**MSMA 118th Annual Session**  
**June 4-8, 1986**      **Biloxi, MS**

## MEDICAL ORGANIZATION

### MSMA/ASIM Seminar Examines Alternative Delivery Systems

What changes can Mississippi physicians and patients expect with the various alternative delivery systems being marketed today? What are some things physicians should consider in contracting with an alternative delivery system? How are some of the delivery systems sponsored by medical societies faring in today's competitive medical environment?

Nearly 200 physicians crowded into a meeting room at Jackson's Ramada Renaissance Hotel last month to hear these and other questions discussed. The seminar was jointly sponsored by MSMA and the Mississippi Chapter, American Society of Internal Medicine (ASIM).

Opening the discussion was Laura Allendorf of Washington, DC, associate director of ASIM's Department of Medical and Governmental Affairs, who presented an overview of alternative delivery systems and their operations across the nation.

Jackson attorney Richard Cowart displayed portions of physician contracts currently offered by various insurance companies' delivery plans, and cautioned seminar participants about some of the restrictions and requirements included in these contracts. He urged physicians considering such contracts to obtain professional advice and counsel.

Concluding the panel discussion was Dr. Ed McClusky of Tyler, Texas, chairman of the board of East Texas Health Plan. He described the development and operations of the Plan, sponsored by the local medical society, and outlined their success with holding down costs and preserving quality of care.

Following the conference, MSMA's Committee on Alternative Delivery Systems, chaired by Dr. Ellis M. Moffitt, met briefly to initiate plans for acting on the Board of Trustee's recommendation for establishing an MSMA IPA/HMO.



MSMA president Dr. Ralph Brock, left, and Dr. John Bower, president of the Mississippi Chapter, American Society of Internal Medicine, second from right, welcomed panel members to the seminar on alternative delivery systems held last month in Jackson. With them are, from left, Jackson attorney Richard Cowart, Laura Allendorf of Washington, DC, and Dr. Ed McClusky of Tyler, Texas.

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100



## **UMC Receives Grant For Atherosclerosis Risk Study**

The University of Mississippi Medical Center has been awarded a \$6.4 million grant from the National Heart, Lung and Blood Institute of the National Institutes of Health. Richard Hutchinson, M.D., UMC associate professor of medicine, is a principal investigator.

Grant funds support the Atherosclerosis Risk in Communities (ARIC) study — an eight-year program conducted in four communities in the United States. The objectives of the study are to investigate the etiology of atherosclerosis, the etiology of clinical diseases caused by atherosclerosis and the association of those diseases with suspected coronary heart disease (CHD) risk factors. The study will also measure the variations in CHD incidence, differences in risk factors and development of atherosclerosis reported among the four centers, and estimate the trend in the incidence of hospitalization for CHD and deaths in the four communities. ARIC is the largest study of this kind ever undertaken.

Recruitment into the study is by random selection and invitation to participate. Participation will be voluntary, though the study cannot include volunteers who were not selected into the random sample. Each of the four centers will enroll 4,000 participants, male and female, aged 45-64 at entry. The Medical Center will enroll a black cohort.

Participants will receive an initial physical examination to include electrocardiogram, blood chemistry, urinalysis, fasting blood glucose and insulin and pulmonary function. In addition, blood lipids, lipoproteins and apolipoproteins will be measured, as well as hemostatic properties such as fibrinolysis, platelet function and coagulation. Carotid and femoral atherosclerosis will be assessed using B-scan and Doppler ultrasonography. Blood specimens will be frozen for additional measurements on new cases and selected controls.

The study clinics will provide no medical care. Summaries of clinic findings will be routinely sent to a physician designated by the participant. Acute problems will be referred promptly as indicated.

Participants will be contacted by telephone at yearly intervals to determine changes in risk factors (i.e., smoking cessation, weight loss), occurrence of cardiovascular events and change of address. Three years after entry the participants will receive a follow-up examination identical to the entry study. The individual's physician will be contacted and hospital records assessed to verify diagnoses and treatments. Investigation of cause of death will include informa-

tion from family, physician, coroner and other sources.

Community surveillance will consist of reviewing a specified sampling of hospital records of all patients aged 25-74 discharged with a diagnosis of acute MI and related conditions. Also, death certificates will be reviewed for all residents aged 25-74 with CHD or related causes of death.

Data from all four of the participating clinical centers will be submitted to a fifth center that serves as a data coordinating facility. Final analysis of the data for the 16,000 participants will be compiled at the conclusion of the study. Other study-wide facilities include an ultrasound reading center, a central hemostasis laboratory, a central lipid laboratory, a chemistry laboratory, a pulmonary function laboratory and an ECG laboratory.

Key personnel at University Medical Center include Dr. Robert Watson (co-principal investigator), Dr. Seshadri Raju, Dr. Robert Smith, Dr. William Cushman, Dr. Herbert Langford and Dr. David Conwill (co-investigators), and Mrs. Jane Johnson, project administrative assistant.

Other participating institutions are the University of North Carolina at Chapel Hill, the University of Minnesota in Minneapolis, and the Johns Hopkins School of Hygiene and Public Health in Baltimore.

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One way to meet health needs at a stable or reduced cost is home health services.

The Mississippi State Department of Health has been providing home health services as defined in the Medicare Law on a statewide basis since 1969. Now **every county health department is a state-licensed, Medicare/Medicaid-certified home health agency.**

Through the 82 county health departments, home health services staff work with local physicians, hospitals, and nursing homes to provide alternative care for patients who might otherwise have to remain in the hospital or live in a nursing home. If appropriate to meet the patient's nursing and related needs, home health services is less expensive and also more acceptable to the patient. Yet **every patient remains under his doctor's orders.**

Throughout the course of care for each patient, the public health nurse consults with the physician. She must review the therapy regimen at least every 60 days and report in writing to the physician. The Mississippi State Department of Health goal is to offer the best possible home health services provided by qualified staff who are sensitive to the physician's therapy plan and to the needs of each patient.

For general information or discussion,  
call Home Health Services toll-free  
**1-800-228-2642**  
or the agency's 24-hour answering service  
**601/354-6612**

Or call the home health nurse at your county health department.



**Mississippi State Department of Health  
Meeting Health Needs In The Home**

## **Medical Center Announces Faculty Promotion**

The University of Mississippi Medical Center has named Dr. William R. Stewart assistant professor of surgery (orthopedics) for the current academic session.

Dr. Norman C. Nelson, vice chancellor for health affairs and medical school dean, announced the appointment following approval of the Board of Trustees, State Institutions of Higher Learning.

Dr. Stewart attended Mississippi State University and earned the M.D. degree at the University of Mississippi Medical Center in 1973. He did his internship at Roanoke Memorial Hospital in Roanoke, Virginia, and orthopedic residencies at the University of Mississippi Medical Center from 1974-1979, and spent a year at the Shriners Hospital for Crippled Children in Greenville, South Carolina, and the Lennox Baker Cerebral Palsy Hospital in Durham, North Carolina. He also took a postgraduate fellowship at the Scottish Rite Hospital in Atlanta, Georgia in 1976.

Dr. Stewart is a member of the Mississippi State Medical Association, Mississippi State Orthopedic Association, Central Orthopedic Society of Mississippi, American College of Surgeons, American

Academy of Cerebral Palsy and Developmental Medicine, Michael Hoke Pediatric Orthopedic Society, Southern Orthopedic Association, and the University of Mississippi Guardian Society. He was associate clinical professor of orthopedics at the Medical Center before his appointment to the faculty.

### **POSTGRADUATE CALENDAR**

*November 22-23*

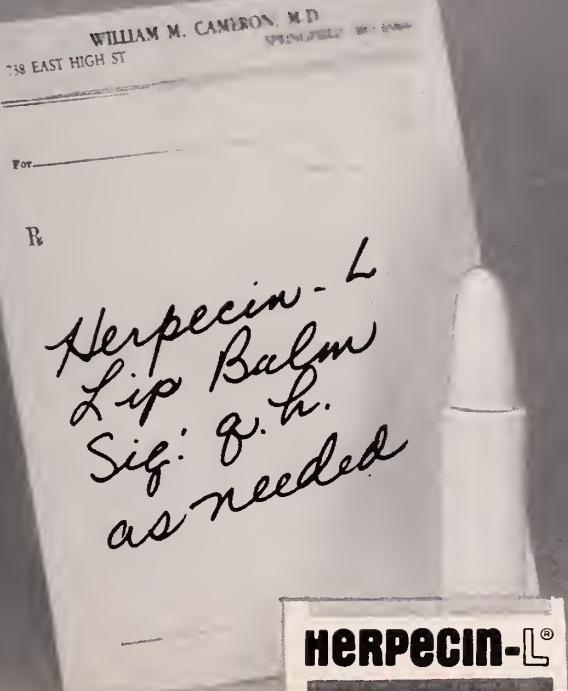
PEDIATRIC ANNUAL MEETING  
University Medical Center, Jackson

*December 4-6*

SEVENTH ANNUAL PERINATAL POSTGRADUATE COURSE  
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## PERSONALS

GEORGE ABRAHAM, HILDON SESSUMS, and LEE GIFFIN of Vicksburg conducted a seminar on health awareness for teachers.

JAMES ACHORD of UMC was visiting faculty for a program on prostaglandins in Chicago.

RICHMOND LAVERNE ALEXANDER has associated with the Rush Medical Group in Meridian for the practice of pulmonary medicine.

PAUL McDUFF ALLEN has associated with RICHARD A. NICHOLLS of Pascagoula for the practice of obstetrics and gynecology.

BRYAN BARKSDALE of Jackson was committee chairman for the 4th annual Arthritis Foundation benefit golf tournament.

GENE BARRETT of Jackson was on the teaching faculty of a rheumatology course in Destin, Florida.

EDWARD J. BASS announces the opening of his office for the practice of cardiology at South Mississippi Medical Clinic, 105 Asbury Circle, in Hattiesburg.

WILLIAM BATES of UMC was visiting professor at the University of Tennessee Health Science Center in Memphis.

THOMAS BENNETT of Jackson spoke at a recent meeting of the Brookhaven Kiwanis Club.

BERNARD BLUMENTHAL of Jackson has been named a fellow of the American College of Radiology.

JOHN BOWER of UMC received an award of special recognition from the American Society of Internal Medicine at the society's annual meeting in Washington, DC.

KENNETH CARTER of Jackson has been named a fellow of the American College of Radiology.

CLAYTON COOK of Hattiesburg discussed detoxification at a recent seminar on alcoholism and drug dependency.

EDGAR DRAPER of UMC presented a paper at the University of Michigan recently.

RICHARD ELLISON has been named a fellow of the American College of Radiology.

LEE ENGLAND of Natchez recently was installed as chief of staff at Jefferson Davis Memorial Hospital. ILEY DILLON was elected vice-chief.

OWEN EVANS of UMC recently was guest speaker at the annual meeting of the Mississippi Public Health Association in Biloxi.

GEORGE ALLEN EYRICH has associated with Rush Medical Group in Meridian for the practice of cardiology.

Jackson Bone and Joint Clinic announces the retirement of LOUIS A. FARBER.

JAMES D. FLY of Jackson was guest speaker at a recent meeting of the Memphis Ophthalmological Society.

THOMAS FREELAND of UMC recently was consultant to the Alabama Commission on Higher Education.

ARMIN HAERER of UMC presented a paper at the Thirteenth World Congress of Neurology in Hamburg, Germany.

JAMES HARDY of UMC served as president-elect of the Paris Congress of International Society of Surgery in Paris recently.

(Continued on page 336)

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*See brief summary of prescribing  
information on next page.*

# ZORprin (aspirin) ZERO ORDER RELEASE

Before prescribing see complete prescribing information. The following is a brief summary.

**INDICATIONS AND USE** ZORprin® is indicated for the treatment of rheumatoid arthritis and osteoarthritis. The safety and efficacy of ZORprin® have not been established in those rheumatoid arthritic patients who are designated by the American Rheumatism Association as Functional Class IV, incapacitated, largely or wholly bedridden, or confined to wheelchair (little or no self-care).

**CONTRAINDICATIONS** ZORprin® should not be used in patients known to be hypersensitive to salicylates or in individuals with the syndrome of nasal polyps, angioedema, bronchospastic reactivity to aspirin, renal or hepatic insufficiency, hypoprothrombinemia or other bleeding disorders. ZORprin® is not recommended for children under 12 years of age. It is contraindicated in all children with fever accompanied by dehydration.

**WARNINGS** ZORprin® should be used with caution when anticoagulants are prescribed concurrently, since aspirin may depress the concentration of prothrombin in plasma and increase bleeding time. Large doses of salicylates may have hypoglycemic action and enhance the effect of the oral hypoglycemics; concomitant use therefore is not recommended. However, if such use is necessary, dosage of the hypoglycemic agent must be reduced. The hypoglycemic action of the salicylates may also necessitate adjustment of the insulin requirements of diabetics. While salicylates in large doses have a uncoupling effect, smaller amounts may reduce the uncoupling effect of uncoupling agents.

**USE IN PREGNANCY** Aspirin can cause fetal harm when administered to pregnant women. Aspirin interferes with maternal and infant blood clotting and may lengthen the duration of pregnancy and parturition. Aspirin has produced teratogenic effects and increases the incidence of stillbirths and neonatal deaths in animals. If this drug is used during pregnancy, or if the patient becomes pregnant while taking this drug, the patient should be apprised of the potential hazard to the fetus. Aspirin should not be taken during the last 3 months of pregnancy.

**PRECAUTIONS** Appropriate precautions should be taken in prescribing ZORprin® for patients who are known to be sensitive to aspirin or salicylates. Particular care should be used when prescribing this medication for patients with erosive gastritis, peptic ulcer, mild diabetes or gout. As with all salicylate drugs, caution should be exercised in prescribing ZORprin® for those patients with bleeding tendencies or those on anticoagulant drugs. Large doses of salicylates should be avoided in patients with clear evidence of carditis in order to avoid exacerbation of disease or adrenal insufficiency. Patients who have been on prolonged corticosteroid therapy should have their therapy tapered slowly rather than discontinued abruptly when ZORprin® is aspirin is made a part of the treatment program. Patients receiving large doses of aspirin and/or prolonged therapy may develop mild salicylate intoxication (salicylism) that may be reversed by reduction in dosage. Salicylates can produce changes in thyroid function tests. Salicylates should be used with caution in patients with severe hepatic damage, preexisting hypoprothrombinemia, Vitamin K deficiency and in those undergoing surgery. Since aspirin release from ZORprin® is pH dependent, it may change in those conditions where the gastric pH has been increased via antacids, gastric secretion inhibitors or surgical procedures.

**ADVERSE REACTIONS** **Hematologic:** Aspirin interferes with blood clotting. Patients with a history of blood coagulation defects or receiving anti-coagulant drugs or with severe anemia should avoid ZORprin®. Aspirin used chronically may cause a persistent iron deficiency anemia.

**Gastrointestinal:** Aspirin may potentiate peptic ulcer, and cause stomach distress or heartburn. Aspirin can cause an increase in occult bleeding and in some patients massive gastrointestinal bleeding. However, the greatest release of active drug from ZORprin® is designed to occur in the small intestine over a period of time. This has resulted in less symptomatic gastrointestinal side effects.

**Allergic:** Allergic and anaphylactic reactions have been noted when hypersensitive individuals have taken aspirin. The most common allergic reaction to aspirin is the induction of bronchospasm with asthma-like symptoms. Other reactions are hives, rash, angioedema, as well as rhinitis and nasal polyps. Fatal anaphylactic shock, while not common, has been reported.

**Central Nervous System:** Taken in overdoses, aspirin provides stimulation which may be manifested by tinnitus. Following initial stimulation, depression of the central nervous system may be noted.

**Renal:** Aspirin may rarely cause an increase in the severity of chronic kidney disease.

**Hepatic:** High doses of aspirin have been reported to produce reversible hepatic dysfunction.

**OVERDOSAGE:** Overdosage, if it occurs, would produce the usual symptoms of salicylism, tinnitus, vertigo, headache, confusion, drowsiness, sweating, hyperventilation, vomiting or diarrhea. Treatment for mild intoxication, emptying the stomach with an emetic, or gastric lavage with 5% sodium bicarbonate. Individuals suffering from severe intoxication should, in addition, have forced diuresis by intravenous infusions of saline and sodium bicarbonate or sodium lactate, dextrose solution. In extreme cases, hemodialysis or peritoneal dialysis may be required.

**HOW SUPPLIED:** ZORprin® tablets 800 mg, plain, white capsule-shaped tablets. Bottles of 100 tablets.

**CAUTION:** Federal Law prohibits dispensing without prescription. Manufactured and distributed by Boots Pharmaceuticals, Inc. Shreveport, LA, 71106 USA

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## PERSONALS (Continued from page 334)

BOBBY HEATH of UMC presented a paper at a meeting of the Southeastern Pediatric Cardiology Society in Wilmington, North Carolina.

J. KEN HENSARLING of Jackson spoke at a meeting of the Lupus Foundation of America, Central Mississippi Chapter.

WOOD HIATT of UMC was instructor at a conference at Plattsburg Air Force Base, New York.

JULIAN B. HILL of Tupelo received renewal of an NCI grant for the North Mississippi Clinical Community Oncology Program, one of six NCI sponsored clinical research programs in the southeastern United States.

THOMAS E. HOLDEN of Grenada announces the association of SIDNEY W. BONDURANT for the practice of obstetrics and gynecology.

SAMUEL JOHNSON of UMC has been elected to the board of directors of Royal Maid Association for the Blind.

ROBERT JORDAN has associated with Meridian Regional Hospital's clinic in Stonewall for the practice of family medicine.

HERBERT LANGFORD of UMC was guest speaker for the recent meeting of the Canadian Hypertension Society in Vancouver, British Columbia.

JOHN LEWIS has established his practice of family medicine at the Levee Street Clinic in Cleveland.

RICHARD LONG announces the opening of his office for the practice of general medicine in Picayune.

BRUCE M. McCARTHY, WILLIAM A. MORRISON, and J. MICHAEL WEAVER have associated with the Hattiesburg Clinic for the practice of orthopedic surgery.

T. SCOTT McCAY of Jackson has been named a fellow of the American College of Radiology.

FRANCIS MORRISON of UMC lectured at an American College of Physicians course in oncology at Wayne State University and attended a meeting of the Southwest Oncology Group in Detroit, Michigan.

JOHN MORRISON of UMC was guest speaker and visiting professor at Stanford University and Kaiser Permanente Medical Center in San Francisco and spoke at a perinatology symposium in London, England.

## NEW MEMBERS

BRETT T. PERSON of Greenwood announces the association of MICHAEL T. BOLER for the practice of internal medicine.

SESHADRI RAJU of UMC presented a paper at the International Society of Surgery in Paris recently.

KENNETH REED of Meridian and CLIFFORD SEYLER of Pascagoula were panelists at child abuse seminars held in Meridian and Pascagoula recently.

CHARLES G. SHERWOOD announces the opening of his office for the practice of ophthalmology at Addie McBryde Rehabilitation Building in Jackson.

DOYLE P. SMITH of Hattiesburg was speaker at a conference in Hattiesburg on alcoholism and drug abuse.

DAVID B. STEPHENS has associated with the Hattiesburg Clinic for the practice of thoracic and cardiovascular surgery.

GUY T. VISE, JR. of Jackson was keynote speaker at the South Carolina Orthopaedic Association meeting held at Kiawah Island.

WINN WALCOTT announces the opening of his office for the practice of pediatrics at 2200 South Lamar Boulevard in Oxford.

BAGGETT, HORACE H., Hattiesburg. Born Florence, AL, March 24, 1948; M.D., University of Mississippi School of Medicine, Jackson, 1973; interned and pediatric residency, University Medical Center, Jackson, 1973-77; anesthesiology residency, same, 1983-85; elected by South Mississippi Medical Society.

KELLER, CANDANCE E., Hattiesburg. Born Laurel, MS, March 24, 1952; M.D., University of Mississippi School of Medicine, Jackson, 1978; interned and general surgery residency, University Medical Center, Jackson, 1978-81; anesthesiology residency, University of Texas Medical Branch, Galveston, January, 1982-December, 1983; elected by South Mississippi Medical Society.

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The author is responsible for all statements made in his work, including changes made by the manuscript editor. Manuscripts are received with the understanding that they are not under simultaneous consideration by any other publication and have not been previously published. All manuscripts will be acknowledged, and while those rejected are generally returned to the author, the JOURNAL is not responsible in event of loss. Manuscripts accepted for publication become the property of the JOURNAL and are copyrighted by the association when published. They may not be published elsewhere without written release and permission from both the JOURNAL and the author.

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Titles should be short, specific, and clear. Ordinarily, a title should not exceed 80 characters, including punctuation.

**References should be limited to a maximum of 10. If there are more than 10, the references will be omitted and a notation made to write the author for a complete list.** Textbooks, personal communications, and unpublished data may not be cited as references. References must include names of authors, complete title cited, name of journal or book spelled out or abbreviated according to the *Index Medicus*, volume number, first and last page numbers, month, date (if published more frequently than monthly), and year. References should be arranged according to order listed in the text and must be numbered consecutively.

Manuscripts accepted for publication are subject to copy editing. Authors will receive galley proof prior to publication. Galley proof is only for correction of errors, and text changes

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In addition, in view of *The Copyright Revision Act of 1976*, effective Jan. 1, 1978, transmittal letters to the editor should contain the following language: "In consideration of the Mississippi State Medical Association's taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns, or otherwise conveys all copyright ownership to the MSMA in the event that such work is published by the MSMA." We regret that transmittal letters not containing the foregoing language signed by *all* authors of the submission will necessitate delay in review of the manuscript. — *The Editors.*

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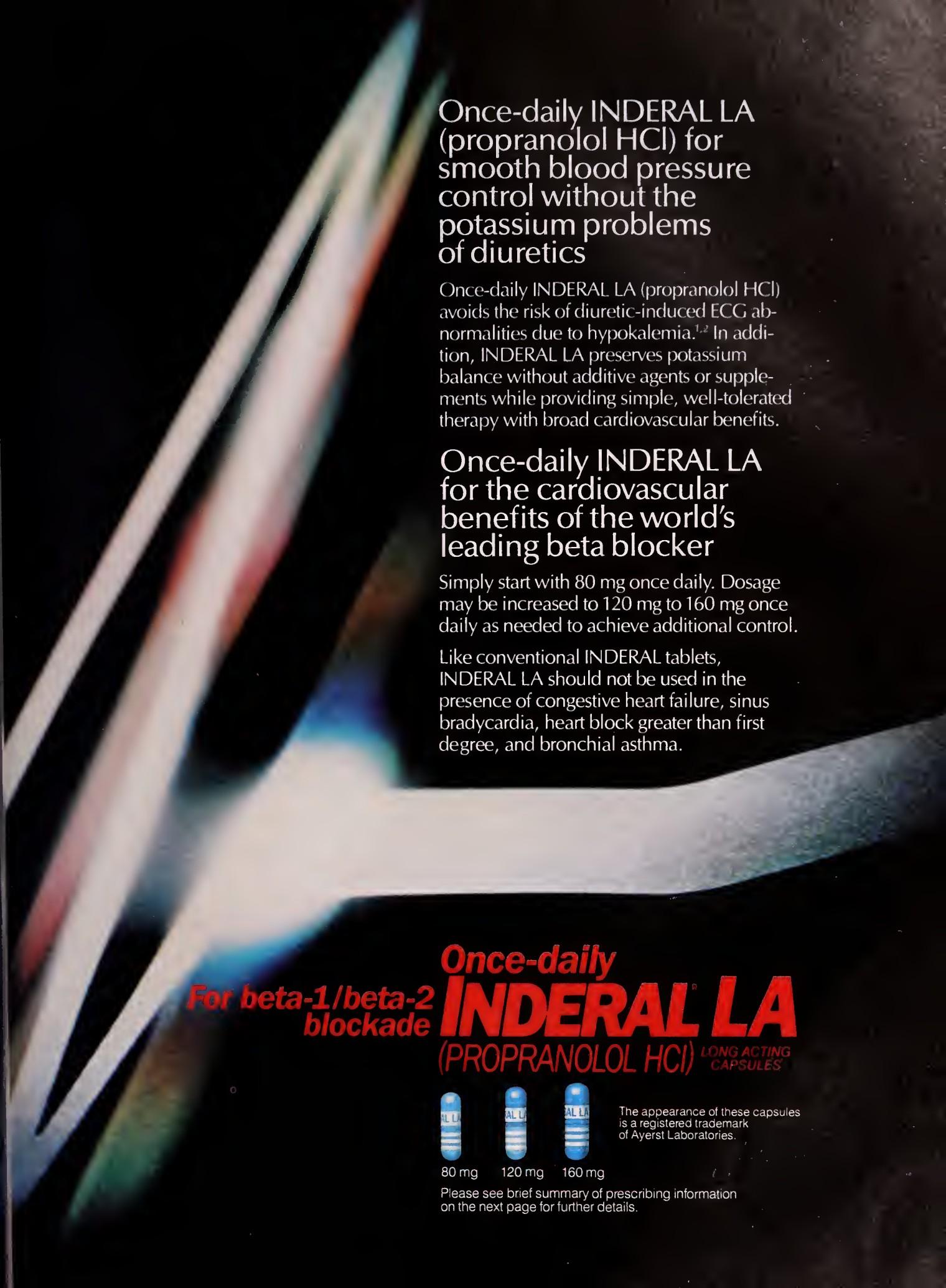
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Please see brief summary of prescribing information on the next page for further details.

**Once-daily**  
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BRIEF SUMMARY (FOR FULL PRESCRIBING INFORMATION SEE PACKAGE CIRCULAR)  
**INDERAL® LA** brand of propranolol hydrochloride (**Long Acting Capsules**)

**DESCRIPTION.** Inderal LA is formulated to provide a sustained release of propranolol hydrochloride. Inderal LA is available as 80 mg, 120 mg, and 160 mg capsules.

**CLINICAL PHARMACOLOGY.** Inderal is a nonselective beta-adrenergic receptor blocking agent possessing no other autonomic nervous system activity. It specifically competes with beta-adrenergic receptor stimulating agents for available receptor sites. When access to beta-receptor sites is blocked by Inderal, the chronotropic, inotropic, and vasodilator responses to beta-adrenergic stimulation are decreased proportionately.

Inderal LA Capsules (80, 120, and 160 mg) release propranolol HCl at a controlled and predictable rate. Peak blood levels following dosing with Inderal LA occur at about 6 hours and the apparent plasma half-life is about 10 hours. When measured at steady state over a 24-hour period the areas under the propranolol plasma concentration-time curve (AUCs) for the capsules are approximately 60% to 65% of the AUCs for a comparable divided daily dose of Inderal tablets. The lower AUCs for the capsules are due to greater hepatic metabolism of propranolol, resulting from the slower rate of absorption of propranolol. Over a twenty-four (24) hour period, blood levels are fairly constant for about twelve (12) hours then decline exponentially.

Inderal LA should not be considered a simple mg for mg substitute for conventional propranolol and the blood levels achieved do not match (are lower than) those of two to four times daily dosing with the same dose. When changing to Inderal LA from conventional propranolol, a possible need for titration upwards should be considered especially to maintain effectiveness at the end of the dosing interval. In most clinical settings, however, such as hypertension or angina where there is little correlation between plasma levels and clinical effect, Inderal LA has been therapeutically equivalent to the same mg dose of conventional Inderal as assessed by 24-hour effects on blood pressure and on 24-hour exercise responses of heart rate, systolic pressure and rate pressure product. Inderal LA can provide effective beta blockade for a 24-hour period.

The mechanism of the antihypertensive effect of Inderal has not been established. Among the factors that may be involved in contributing to the antihypertensive action are (1) decreased cardiac output, (2) inhibition of renin release by the kidneys, and (3) diminution of tonic sympathetic nerve outflow from vasomotor centers in the brain. Although total peripheral resistance may increase initially, it readjusts to or below the pretreatment level with chronic use. Effects on plasma volume appear to be minor and somewhat variable. Inderal has been shown to cause a small increase in serum potassium concentration when used in the treatment of hypertensive patients.

In angina pectoris, propranolol generally reduces the oxygen requirement of the heart at any given level of effort by blocking the catecholamine-induced increases in the heart rate, systolic blood pressure, and the velocity and extent of myocardial contraction. Propranolol may increase oxygen requirements by increasing left ventricular fiber length, end diastolic pressure and systolic ejection period. The net physiologic effect of beta-adrenergic blockade is usually advantageous and is manifested during exercise by delayed onset of pain and increased work capacity.

In dosages greater than required for beta blockade, Inderal also exerts a quinidine-like or anesthetic-like membrane action which affects the cardiac action potential. The significance of the membrane action in the treatment of arrhythmias is uncertain.

The mechanism of the antimigraine effect of propranolol has not been established. Beta-adrenergic receptors have been demonstrated in the pial vessels of the brain. Beta receptor blockade can be useful in conditions in which, because of pathologic or functional changes, sympathetic activity is detrimental to the patient. But there are also situations in which sympathetic stimulation is vital. For example, in patients with severely damaged hearts, adequate ventricular function is maintained by virtue of sympathetic drive which should be preserved. In the presence of AV block, greater than first degree, beta blockade may prevent the necessary facilitating effect of sympathetic activity on conduction. Beta blockade results in bronchial constriction by interfering with adrenergic bronchodilator activity which should be preserved in patients subject to bronchospasm.

Propranolol is not significantly dialyzable.

**INDICATIONS AND USAGE.** **Hypertension:** Inderal LA is indicated in the management of hypertension, it may be used alone or used in combination with other antihypertensive agents, particularly a thiazide diuretic. Inderal LA is not indicated in the management of hypertensive emergencies.

**Angina Pectoris Due to Coronary Atherosclerosis:** Inderal LA is indicated for the long-term management of patients with angina pectoris.

**Migraine:** Inderal LA is indicated for the prophylaxis of common migraine headache. The efficacy of propranolol in the treatment of a migraine attack that has started has not been established and propranolol is not indicated for such use.

**Hypertrophic Subaortic Stenosis:** Inderal LA is useful in the management of hypertrophic subaortic stenosis, especially for treatment of exertional or other stress-induced angina, palpitations, and syncope. Inderal LA also improves exercise performance. The effectiveness of propranolol hydrochloride in this disease appears to be due to a reduction of the elevated outflow pressure gradient which is exacerbated by beta-receptor stimulation. Clinical improvement may be temporary.

**CONTRAINDICATIONS.** Inderal is contraindicated in 1) cardiogenic shock, 2) sinus bradycardia and greater than first degree block, 3) bronchial asthma, 4) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythmia treatable with Inderal.

**WARNINGS.** **CARDIAC FAILURE.** Sympathetic stimulation may be a vital component supporting circulatory function in patients with congestive heart failure, and its inhibition by beta blockers may precipitate more severe failure. Although beta blockers should be avoided in overt congestive heart failure, if necessary, they can be used with close follow-up in patients with a history of failure who are well compensated and are receiving digitalis and diuretics. Beta-adrenergic blocking agents do not abolish the inotropic action of digitalis on heart muscle.

**IN PATIENTS WITHOUT A HISTORY OF HEART FAILURE,** continued use of beta blockers can in some cases, lead to cardiac failure. Therefore, at the first sign or symptom of heart failure, the patient should be digitalized and/or treated with diuretics, and the response observed closely; Inderal should be discontinued (gradually, if possible).

**IN PATIENTS WITH ANGINA PECTORIS,** there have been reports of exacerbation of angina and, in some cases, myocardial infarction, following abrupt discontinuance of Inderal therapy. Therefore, when discontinuance of Inderal is planned the dosage should be gradually reduced over at least a few weeks, and the patient should be cautioned against interruption or cessation of therapy without the physician's advice. If Inderal therapy is interrupted and exacerbation of angina occurs, it usually is advisable to reinstitute Inderal therapy and take other measures appropriate for the management of unstable angina pectoris. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease who are given propranolol for other indications.

**Nonallergic Bronchospasm (e.g., chronic bronchitis, emphysema)—** PATIENTS WITH BRONCHOSPASTIC DISEASES SHOULD IN GENERAL NOT RECEIVE BETA BLOCKERS. Inderal should be administered with caution since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of beta receptors.

**MAJOR SURGERY.** The necessity or desirability of withdrawal of beta-blocking therapy prior to major surgery is controversial. It should be noted, however, that the impaired ability of the heart to respond to reflex adrenergic stimuli may augment the risks of general anesthesia and surgical procedures.



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**INDERAL (propranolol HCl),** like other beta blockers, is a competitive inhibitor of beta-receptor agonists and its effects can be reversed by administration of such agents, e.g., dobutamine or isoproterenol. However, such patients may be subject to protracted severe hypotension. Difficulty in starting and maintaining the heartbeat has also been reported with beta blockers.

**DIABETES AND HYPOGLYCEMIA.** Beta-adrenergic blockade may prevent the appearance of certain premonitory signs and symptoms (pulse rate and pressure changes) of acute hypoglycemia in labile insulin-dependent diabetes. In these patients, it may be more difficult to adjust the dosage of insulin.

**THYROTOXICOSIS.** Beta blockade may mask certain clinical signs of hyperthyroidism. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. Propranolol does not distort thyroid function tests.

**IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME,** several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case this resulted after an initial dose of 5 mg propranolol.

**PRECAUTIONS.** General: Propranolol should be used with caution in patients with impaired hepatic or renal function. Inderal (propranolol HCl) is not indicated for the treatment of hypertensive emergencies.

Beta adrenoceptor blockade can cause reduction of intraocular pressure. Patients should be told that Inderal may interfere with the glaucoma screening test. Withdrawal may lead to a return of increased intraocular pressure.

**Clinical/Laboratory Tests.** Elevated blood urea levels in patients with severe heart disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase.

**DRUG INTERACTIONS.** Patients receiving catecholamine-depleting drugs such as reserpine should be closely observed if Inderal is administered. The added catecholamine-blocking action may produce an excessive reduction of resting sympathetic nervous activity which may result in hypotension, marked bradycardia, vertigo, syncopal attacks, or orthostatic hypotension.

**Carcinogenesis, Mutagenesis, Impairment of Fertility.** Long-term studies in animals have been conducted to evaluate toxic effects and carcinogenic potential. In 18-month studies in both rats and mice, employing doses up to 150 mg/kg/day, there was no evidence of significant drug-induced toxicity. There were no drug-related tumorigenic effects at any of the dosage levels. Reproductive studies in animals did not show any impairment of fertility that was attributable to the drug.

**Pregnancy.** Pregnancy Category C. Inderal has been shown to be embryotoxic in animal studies at doses about 10 times greater than the maximum recommended human dose.

There are no adequate and well-controlled studies in pregnant women. Inderal should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

**Nursing Mothers.** Inderal is excreted in human milk. Caution should be exercised when Inderal is administered to a nursing woman.

**Pediatric Use.** Safety and effectiveness in children have not been established.

**ADVERSE REACTIONS.** Most adverse effects have been mild and transient and have rarely required the withdrawal of therapy.

**Cardiovascular:** bradycardia, congestive heart failure, intensification of AV block, hypertension; paresthesia of hands, thrombocytopenic purpura, arterial insufficiency, usually of the Raynaud type.

**Central Nervous System:** lightheadedness; mental depression manifested by insomnia, lassitude, weakness, fatigue; reversible mental depression progressing to catatonia, visual disturbances, hallucinations, an acute reversible syndrome characterized by disorientation for time and place, short-term memory loss, emotional lability, slightly clouded sensorium, and decreased performance on neuropsychometrics.

**Gastrointestinal:** nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic colitis.

**Allergic:** pharyngitis and agranulocytosis, erythematous rash, fever combined with aching and sore throat, laryngospasm and respiratory distress.

**Respiratory:** bronchospasm.

**Hematologic:** agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura.

**Auto-Immune:** In extremely rare instances, systemic lupus erythematosus has been reported.

**Miscellaneous:** alopecia, LE-like reactions, psoriasisform rashes, dry eyes, male impotence, and Peyronie's disease have been reported rarely. Oculomucocutaneous reactions involving the skin, serous membranes and conjunctiva reported for a beta blocker (practolol) have not been associated with propranolol.

**DOSAGE AND ADMINISTRATION.** Inderal LA provides propranolol hydrochloride in a sustained-release capsule for administration once daily. If patients are switched from Inderal tablets to Inderal LA capsules, care should be taken to assure that the desired therapeutic effect is maintained. Inderal LA should not be considered a simple mg for mg substitute for Inderal. Inderal LA has different kinetics and produces lower blood levels. Retitration may be necessary especially to maintain effectiveness at the end of the 24-hour dosing interval.

**HYPERTENSION—Dosage must be individualized.** The usual initial dosage is 80 mg Inderal LA once daily, whether used alone or added to a diuretic. The dosage may be increased to 120 mg once daily or higher until adequate blood pressure control is achieved. The usual maintenance dosage is 120 to 160 mg once daily. In some instances a dosage of 640 mg may be required. The time needed for full hypertensive response to a given dosage is variable and may range from a few days to several weeks.

**ANGINA PECTORIS—Dosage must be individualized.** Starting with 80 mg Inderal LA once daily, dosage should be gradually increased at three to seven day intervals until optimum response is obtained. Although individual patients may respond at any dosage level, the average optimum dosage appears to be 160 mg once daily. In angina pectoris, the value and safety of dosage exceeding 320 mg per day have not been established.

If treatment is to be discontinued, reduce dosage gradually over a period of a few weeks (see WARNINGS).

**MIGRAINE—Dosage must be individualized.** The initial oral dose is 80 mg Inderal LA once daily. The usual effective dose range is 160-240 mg once daily. The dosage may be increased gradually to achieve optimum migraine prophylaxis. If a satisfactory response is not obtained within four to six weeks after reaching the maximum dose, Inderal LA therapy should be discontinued. It may be advisable to withdraw the drug gradually over a period of several weeks.

**HYPERTROPHIC SUBAORTIC STENOSIS—80-160 mg Inderal LA once daily.**

**PEDIATRIC DOSAGE—** At this time the data on the use of the drug in this age group are too limited to permit adequate directions for use.

#### REFERENCES

1. Holland OB, Nixon JV, Kuhnert L: Diuretic-induced ventricular ectopic activity. *Am J Med* 1981;70:762-768.
2. Holme I, Helgeland A, Hjermann I, et al: Treatment of mild hypertension with diuretics. The importance of ECG abnormalities in the Oslo study and in MRFIT. *JAMA* 1984;251:1298-1299.

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## **Medico-Legal Brief Physician Loses Age Discrimination Suit**

A professional corporation was entitled to summary judgment in an age discrimination action against it by a physician-shareholder, a federal trial court in Connecticut ruled.

The physician was a founding member of the professional corporation, which was formed in 1972 to provide radiological services to a hospital. Each of the five founding radiologists capitalized the corporation by the same amount and received the same amount of stock. Each was an officer and director of the firm and executed identical employment and stockholders agreements. On July 22, 1980, the radiologist was expelled from the professional corporation by its other members. He was 51 years old at the time. Under the employment termination agreement, the remaining members of the professional corporation would purchase his stock within 90 days of his termination.

In an action against the professional corporation, the physician claimed that he was entitled to damages for alleged age discrimination in violation of the Age Discrimination in Employment Act. Noting that the professional corporation was an employer, the court said that the physician could not be considered an employee of the corporation. Although the radiology group was technically a corporation and all of its employees and owners could be considered employees under the act, the court said that the radiology group was a partnership in all but name. The court applied the economic realities test in making its decision. The structure of the business was an equal division of ownership and management and an equal sharing of profits and losses among the members, the court said. As a member of the common enterprise, the physician could not separate himself from his management and ownership participation. He was not an employee under the act, and the corporation was entitled to summary judgment. — *Hyland v. New Haven Radiology Associates*, 606 F.Supp. 617 (D.C., Conn., April 16, 1985)

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# IN CONCLUSION

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Further cuts in Medicare outlays for elderly hospital patients threaten to be arbitrary spending reductions, warns Congressman Robert Matsui (D-Calif) in the October 31 JAMA. His editorial pointed to problems with the DRG reimbursement system, including regional variations in costs of labor and supplies and the lack of adjustments for hospitals treating large numbers of Medicare and low-income patients. He called for an extension of the original three-year phase-in period, noting the need for refinements in the system.

---

Hospitals with large numbers of emergency department admissions, especially Medicare patients, may face financial losses resulting from the prospective payment system, according to the October 3 issue of JAMA. One hospital's study of ER-generated admissions showed that Medicare patient deficits measured \$2,363,163 while all-payer patients showed a net profit of \$4,267,859, when costs were used to compute expenses. When charges were used to measure expense, all clinical departments showed losses for both groups of patients.

---

Permanent eyelash loss can follow pigment implantation, known as eyelid tattooing, designed to replace the need for daily application of cosmetic eyeliner, according to a report in the October Archives of Ophthalmology. An accompanying editorial says, "The sensational promoting of eyelid tattooing makes one wonder about the direction of our specialty and the value of the many years spent in professional training." The writer notes the procedure may finally prove to be safe and useful, but emphasizes the need for more study.

---

Only three low level radioactive waste (LLRW) disposal sites remain open in the United States, and even they are threatened with closure, according to a report in the October 31 JAMA. Since medicine and medical research account for nearly one quarter of such wastes, the closure problem is one that medicine must address, the report adds. The writers note the need to deal responsibly with the issue, both in terms of effective isolation of LLRW from the biosphere and in terms of the potential loss of vital medical services.

---

NOTES: Uncompensated care for Mississippi's hospitals totaled more than \$272 million in 1984, the highest figure ever...By the year 2025, nearly one in five people will be 65 years of age or older, nearly twice the proportion today...Orthopedic injuries sustained in motorcycle accidents cost an average of \$17,704, according to one study which also found 75% of victims had no insurance and 72% of costs were paid by the state...First-time enrollment in U.S. medical schools has decreased for the third year in a row.

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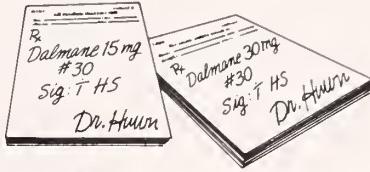
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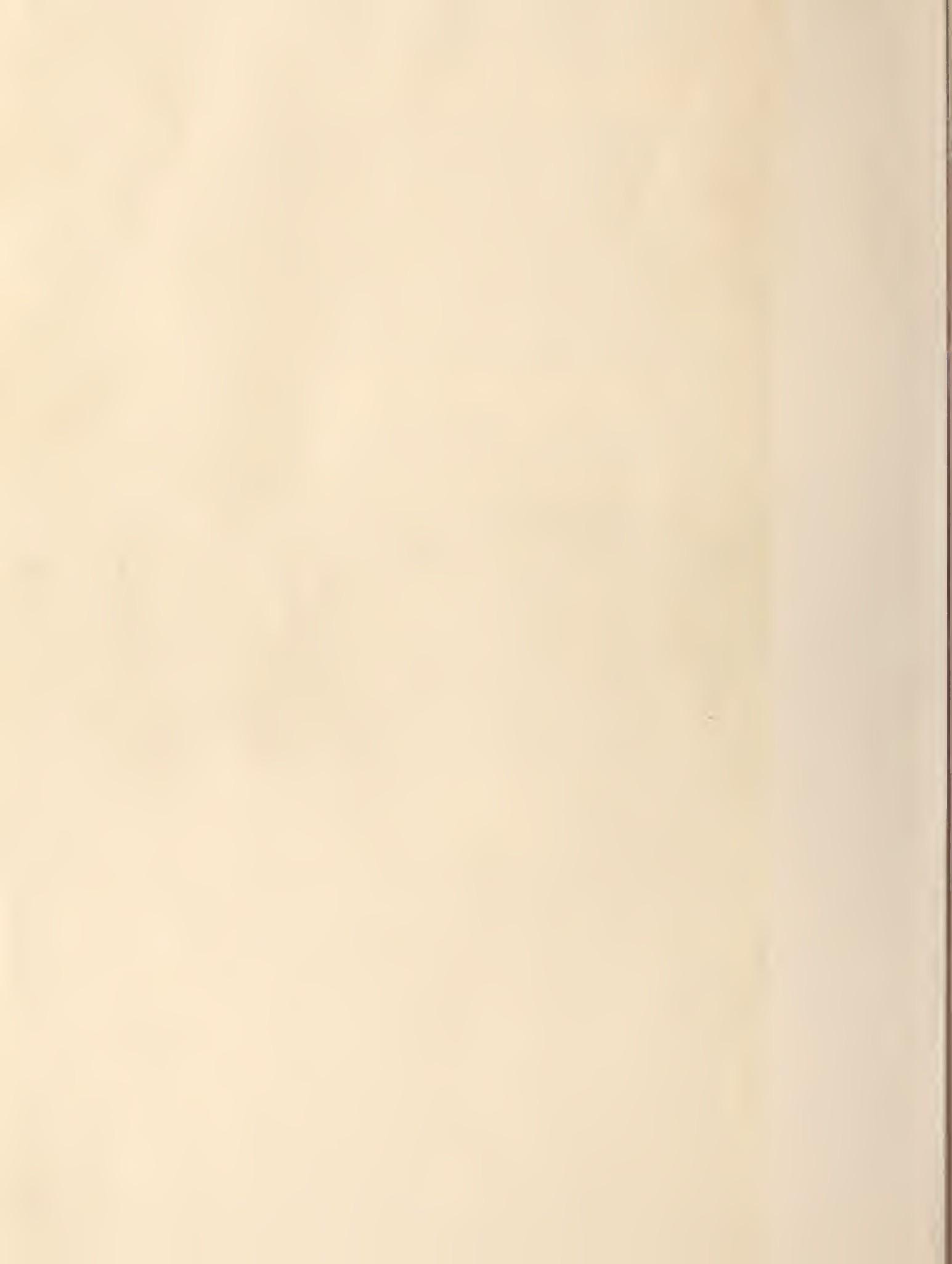
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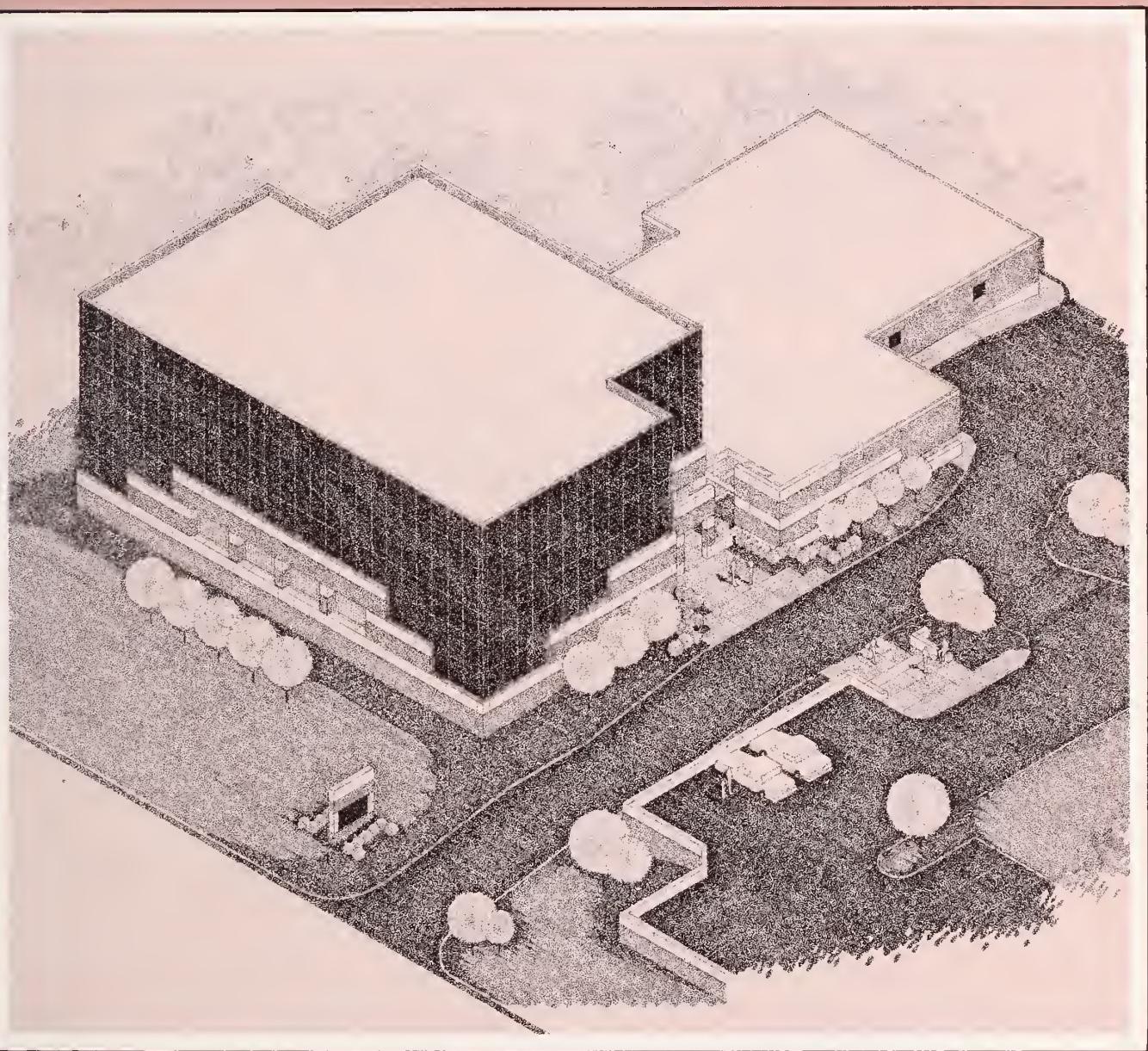
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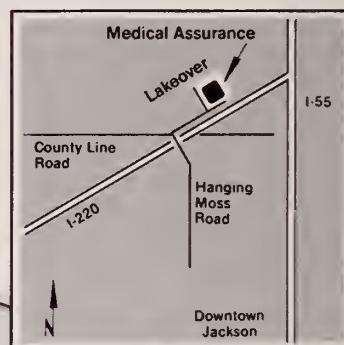
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# NEWSLETTER

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December 1985

Dear Doctor:

A \$4.6 million budget cut in the middle of the fiscal year has forced the dismissal of 85 University Medical Center employees and the closing of UMC's outpatient dental clinic and pharmacy. In an effort to cope with the cuts, the medical center will also reduce overtime work and will not fill 23 vacant jobs. Additionally, travel budgets will be frozen and equipment purchases delayed.

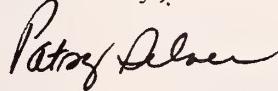
The medical center's cuts were part of a \$12.4 million reduction in state appropriations for higher education which affected the eight state universities. The cuts were, in turn, part of a \$47.4 million reduction in the state general fund budget, which also affected the State Health Department. Faced with a 4.3% budget cut, the Health Department will reduce allocations to programs for crippled children and family planning, as well as the Tuberculosis Control Program, which will receive the largest reduction, \$325,000.

The ten-year-old health planning act will expire on November 30, 1986, following action of the House Energy and Commerce Committee, which has voted to "sunset" the measure. The controversial act has long been opposed by the AMA in favor of a local, community-based voluntary approach to health planning.

The lives of more than 400 motorists have been saved in states with safety belt use laws in effect, countering a nationwide trend towards higher traffic death rates in 1985, according to figures released by agencies in four states. Traffic Safety Now, Inc., which compiled the figures, notes that in both New York and Michigan 28% fewer drivers and passengers have died since laws in each of those states have been in effect (January 1, 1985 for New York and July 1, 1985 for Michigan).

A Massachusetts law requiring physicians to accept assignment for all services to Medicare beneficiaries has been challenged in a lawsuit filed by the AMA and the state medical society. Under the law, which went into effect last month, physicians must agree to comply with Medicare assignment as a condition for licensure.

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Managing Editor



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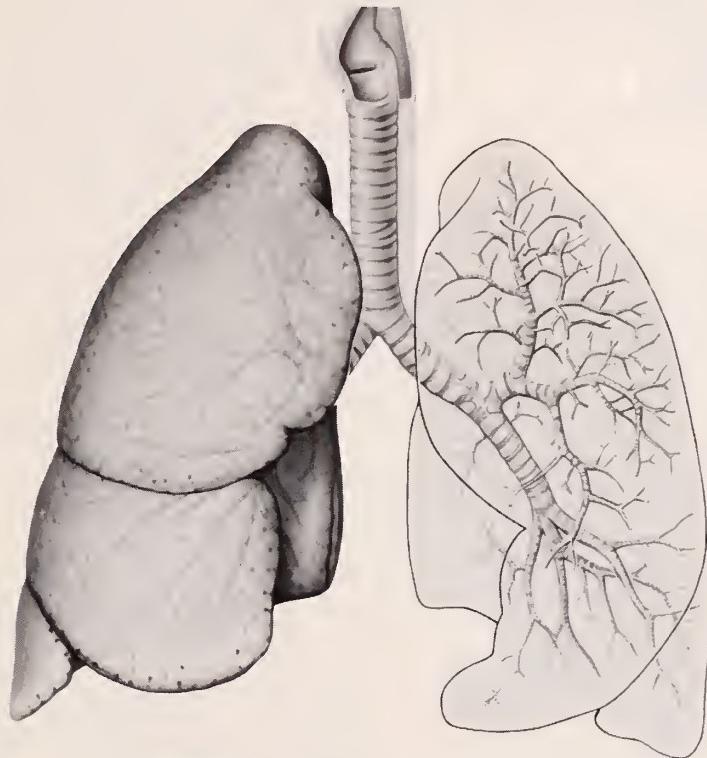
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**Contraindication:** Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

**Warnings:** IN PENICILLIN SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS, INCLUDING ANAPHYLAXIS, TO THESE CLASSES.

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics including macrolides, semisynthetic penicillins, and cephalosporins; therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with antibiotic therapy. Such colitis usually ranges in severity from mild to life threatening.

Treatment with broad spectrum antibiotics alters the normal flora of the colon and may permit overgrowth of *Clostridium difficile*. Studies indicate that a toxin produced by *Clostridium difficile* is one primary cause of antibiotic-associated colitis.

Mild cases of pseudomembranous colitis usually respond to drug discontinuance alone. In moderate to severe cases, manage-

ment should include sigmoidoscopy, appropriate bacteriologic studies, and fluid, electrolyte, and protein supplementation. When colitis does not improve after the drug has been discontinued, or if it is severe, oral vancomycin is the drug of choice for colitis associated pseudomembranous colitis produced by *C. difficile*. Other causes of colitis should be ruled out.

**Precautions: General Precautions** — If an allergic reaction to Ceclor® (cefaclor, Lilly) occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of Ceclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs' tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs' testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs' test may not be due to disease.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such conditions, careful clinical observation and laboratory studies should be made because safe dosage may be lower than usually recommended.

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinistix® (trade name) not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Broad spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.

**Usage in Pregnancy — Pregnancy Category B** — Reproduction studies have been performed in mice and rats at doses up to 12 times the human dose and in ferrets given three times the maximum

human dose and have revealed no evidence of impaired fertility or harm to the fetus due to Ceclor® (cefaclor, Lilly). There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

**Nursing Mothers** — Small amounts of Ceclor have been detected in mother's milk following administration of single 500-mg doses. Average levels were 0.18, 0.20, 0.21, and 0.16 mcg/ml at two, three, four, and five hours respectively. Trace amounts were detected at one hour. The effect on nursing infants is not known. Caution should be exercised when Ceclor is administered to a nursing woman.

**Usage in Children** — Safety and effectiveness of this product for use in infants less than one month of age have not been established.

**Adverse Reactions.** Adverse effects considered related to therapy with Ceclor are uncommon and are listed below.

**Gastrointestinal symptoms** occur in about 2.5 percent of patients and include diarrhea (1 in 70).

Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment. Nausea and vomiting have been reported rarely.

**Hypersensitivity reactions** have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100); pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions (erythema multiforme or the acute skin manifestations accompanied by arthritis/arthralgia and, frequently, fever) have been reported.

These reactions are apparently due to hypersensitivity and have usually occurred during the first few days of therapy with Ceclor. Such reactions have been reported more frequently in children than in adults. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which have

occurred in patients with a history of penicillin allergy. Other effects considered related to therapy included eosinophilia (less than 1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 10 patients).

**Causal Relationship Uncertain** — Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

**Hepatic** — Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

**Hematopoietic** — Transient fluctuations in leukocyte count, platelets, and hemoglobinocytosis occurring in infants and young children (1 in 40).

**Renal** — Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[061782R]

**Note:** Ceclor® (cefaclor, Lilly) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

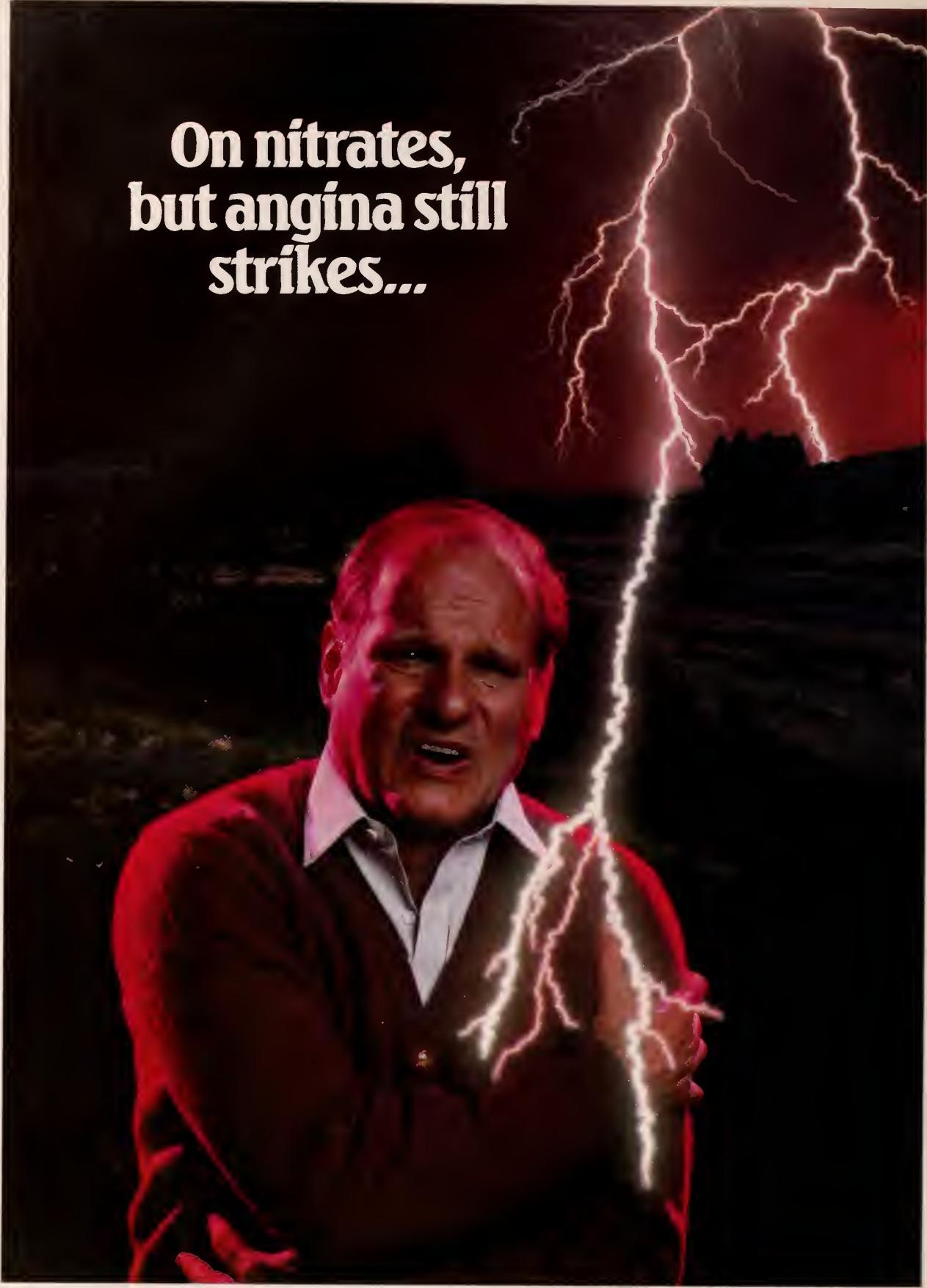
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Cardiovascular contraindications to the use of Isoptin are similar to those of beta blockers: severe left ventricular dysfunction, hypotension (systolic pressure <90 mm Hg) or cardiogenic shock, sick sinus syndrome (if no artificial pacemaker is present) and second- or third-degree AV block.

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Elevations of transaminases with and without concomitant elevations in alkaline phosphatase and bilirubin have been reported. Such elevations may disappear even with continued treatment; however, four cases of hepatocellular injury by verapamil have been proven by rechallenge. Periodic monitoring of liver function is prudent during verapamil therapy. Patients with atrial flutter or fibrillation and an accessory AV pathway (e.g. W-P-W or L-G-L syndromes) may develop increased antegrade conduction across the aberrant pathway bypassing the AV node, producing a very rapid ventricular response after receiving ISOPTIN (or digitalis). Treatment is usually D.C.-cardioversion, which has been used safely and effectively after ISOPTIN. Because of verapamil's effect on AV conduction and the SA node, 1° AV block and transient bradycardia may occur. High grade block, however, has been infrequently observed. Marked 1° or progressive 2° or 3° AV block requires a dosage reduction or, rarely, discontinuation and institution of appropriate therapy depending upon the clinical situation. Patients with hypertrophic cardiomyopathy (IHSS) received verapamil in doses up to 720 mg/day. It must be appreciated that this group of patients had a serious disease with a high mortality rate and that most were refractory or intolerant to propranolol. A variety of serious adverse effects were seen in this group of patients including sinus bradycardia, 2° AV block, sinus arrest, pulmonary edema and/or severe hypotension. Most adverse effects responded well to dose reduction and only rarely was verapamil discontinued. **Precautions:** ISOPTIN should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of excessive pharmacologic effects. Studies in a small number of patients suggest that concomitant use of ISOPTIN and beta blockers may be beneficial in patients with chronic stable angina. Combined therapy can also have adverse effects on cardiac function. Therefore, until further studies are completed, ISOPTIN should be used alone, if possible. If combined therapy is used, close surveillance of vital signs and clinical status should be carried out. Combined therapy with ISOPTIN and propranolol should usually be avoided in patients with AV conduction abnormalities and/or depressed left ventricular function. Chronic ISOPTIN treatment increases serum digoxin levels by 50% to 70% during the first week of therapy, which can result in digitalis toxicity. The digoxin dose should be reduced when ISOPTIN is given, and the patients should be carefully monitored to avoid over- or under-digitalization. ISOPTIN may have an additive effect on lowering blood pressure in patients receiving oral antihypertensive agents. Disopyramide should not be given within 48 hours before or 24 hours after ISOPTIN administration. Until further data are obtained, combined ISOPTIN and quinidine therapy in patients with hypertrophic cardiomyopathy should probably be avoided, since significant hypotension may result. Clinical experience with the concomitant use of ISOPTIN and short- and long-acting nitrates suggest beneficial interaction without undesirable drug interactions. Adequate animal carcinogenicity studies have not been performed. One study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. **Pregnancy Category C:** There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor and delivery only if clearly needed. It is not known whether verapamil is excreted in breast milk; therefore, nursing should be discontinued during ISOPTIN use. **Adverse Reactions:** Hypotension (2.9%), peripheral edema (1.7%), AV block: 3rd degree (0.8%), bradycardia: HR < 50/min (1.1%), CHF or pulmonary edema (0.9%), dizziness (3.6%), headache (1.8%), fatigue (1.1%), constipation (6.3%), nausea (1.6%), elevations of liver enzymes have been reported. (See *Warnings*.) The following reactions, reported in less than 0.5%, occurred under circumstances where a causal relationship is not certain: ecchymosis, bruising, gynecomastia, psychotic symptoms, confusion, paresthesia, insomnia, somnolence, equilibrium disorder, blurred vision, syncope, muscle cramp, shakiness, claudication, hair loss, macules, spotty menstruation. **How Supplied:** ISOPTIN (verapamil HCl) is supplied in round, scored, film-coated tablets containing either 80 mg or 120 mg of verapamil hydrochloride and embossed with "ISOPTIN 80" or "ISOPTIN 120" on one side and with "KNOLL" on the reverse side. Revised August, 1984

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# DATELINE

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Tort Reform Bill  
Introduced in Congress

Washington, DC - The AMA-developed professional liability reform bill has been introduced in Congress, with Sen. Thad Cochran as a co-sponsor. The bill would provide federal grant incentives for states to adopt certain reforms, including: mandatory periodic payments for awards of future damages exceeding \$100,000; awards reduced by compensation received from other sources; a limit on non-economic awards; and a limit on attorneys' fees.

---

"Baby Doe" Regulations  
Before Supreme Court

Washington, DC - U. S. Supreme Court has been asked to affirm the rights of parents, in consultation with their physicians, to make treatment decisions for severely handicapped newborns. The AMA requested the court of enjoin the Dept. of HHS from implementing a federal regulation affecting the treatment of impaired infants. Lower courts ordered HHS to stop "Baby Doe" investigations in hospital delivery rooms and nurseries.

---

Whooping Cough  
Cases Increasing

Chicago, IL - Ten "near epidemics" of whooping cough have been attributed to fear of side effects of the DPT vaccine, which is prompting many parents not to immunize their children. According to the American Academy of Pediatrics the epidemics, some involving brain damage or death to children, have occurred in eight states. The CDC has tabulated 2,258 cases of whooping cough through mid-October, almost double the total of cases in all of 1982.

---

MS-AFP Screening  
Laboratory at UMC

Jackson, MS - A statewide reference laboratory for maternal serum alpha-fetoprotein (MS-AFP) screening became available last month at the University Medical Center. For more information, contact Dr. James N. Martin, medical director of the project, or Ms. Melesa McGregor, R.N., project coordinator, at 601/987-4804. Patient education booklets, sample permits and mailers are available to all physicians participating in this project.

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Space Available

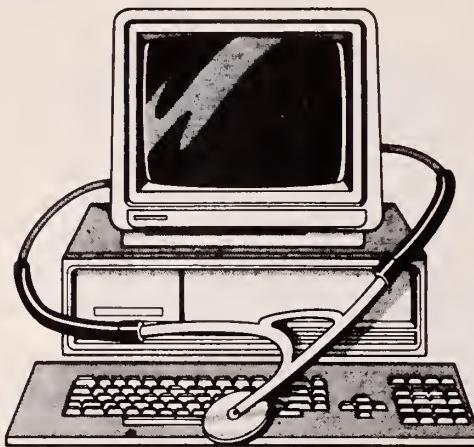
Jackson, MS - Applications are now being accepted from MSMA members for scientific exhibit space at MSMA's 1986 Annual Session. The meeting will be held June 4-8 at the Royal d'Iberville Hotel in Biloxi. Applicants should write a letter requesting space, furnishing the title, name of sponsor(s) and the amount of linear feet required for the proposed exhibit. Space is limited, so early application is encouraged.

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ORIGINAL PAPERS

# Ruptured Tubal Pregnancy Six Years After Total Vaginal Hysterectomy

JOHN P. CULPEPPER, III, M.D.

Hattiesburg, Mississippi

THE FOLLOWING CASE is presented as both an unusual case and a problem in differential diagnosis of abdominal pain.

This 34-year-old female was admitted to the Methodist Hospital, Hattiesburg, on August 17, 1981, complaining of right lower quadrant abdominal pain, nausea, and intermittent diarrhea. Significant incidents in her past history included a total vaginal hysterectomy in 1975 for endometriosis and a thyroidectomy in 1978 for carcinoma of the thyroid. She had had intermittent treatment for nonspecific colitis and chronic cholecystitis (x-rays suggesting a polyp or stone in the gallbladder).

Her admission WBC was 14,500, with hematocrit of 35%. Initial abdominal examination revealed tenderness across the lower abdomen, but no guarding or rebound tenderness, and mild distention with active peristaltic sounds. No masses were felt. Pelvic examination confirmed that she had had a total hysterectomy, and other than some right adnexal fullness and mild tenderness, no unusual findings were recorded. Initial impression was that she had colitis but appendicitis was also considered. Cholecystitis was doubtful.

On the evening of admission, she had a syncopal episode associated with intense lower abdominal pain and a small amount of bright red vaginal bleeding. Vaginal examination revealed blood coming from a small hole in the right apex of the vagina.

*The author presents a case of ruptured tubal pregnancy occurring six years after a total hysterectomy, and discusses the mechanism of sperm entrance, symptoms, and laboratory findings. He observes that because it is rarely encountered, the diagnosis is usually not considered, and emphasizes the importance of early surgical intervention to prevent complications of hypovolemic shock. A plea is issued for salpingectomy at the time of hysterectomy.*

Vaginal packing seemed to control the bleeding. Her blood pressure stabilized after the initial episodes, but her hematocrit dropped to 27% by August 23 and several blood transfusions were given. She was seen in consultation on August 21 by the gynecologist who had performed her hysterectomy, but no explanation could be found for the bleeding, as it had ceased by that time.

After stabilization with blood transfusions, a laparotomy was done on August 24, and several thousand cubic centimeters of old blood with some fresh red blood was found. There was an orange-sized hemorrhagic mass adhered to the right lateral pelvic peritoneum, bladder and vagina. Initial impression was that she had a ruptured endometrial cyst of the right ovary; and the entire mass, including tube and ovary, was excised. The left tube and ovary appeared normal. The pathologist returned a frozen

Dr. Culpepper is engaged in the private practice of general surgery at Surgery Clinic of Hattiesburg, MS.

section report of "ruptured tubal pregnancy and corpus luteum cyst of pregnancy in the ovary." We attempted to locate a fetus in the previously removed blood clots, but none was recovered. A cholecystectomy was performed and the gynecologist excised and closed the vaginal fistula. The patient had a good postoperative recovery and was discharged in satisfactory condition.

In retrospect, she stated that she had had morning sickness, occasional vomiting, and malaise for several weeks before this admission, consistent with the symptoms that she had experienced during previous pregnancies. Apparently, six years after hysterectomy, the tubal pregnancy had resulted from sperm entering through the fistula in the apex of the vagina, which communicated with the right fallopian tube.

### Discussion

An excellent review of this unusual problem was presented by Zollie and Rock in 1982.<sup>1</sup> Of the 24 reported cases, only ten were considered "late" cases — those occurring later than 9 months after the hysterectomy. In 14 cases conception was considered to have occurred before the hysterectomy.

The difficulty in making this diagnosis has been apparent in all reported cases. In most cases, however, the symptoms were consistent with a ruptured ectopic pregnancy; that is, nausea, lower abdominal pain, vaginal bleeding, and hypovolemic shock. The main reason for delay in diagnosis and surgery

seemed to be the fact that the patient had already had a hysterectomy, and the differential diagnosis did not include consideration of a ruptured tubal pregnancy. The addition of a urinary chronic gonadotropin test to the preoperative evaluation of a patient with these symptoms would be of benefit in determining a diagnosis. This problem could be avoided if surgeons would consider total fallopian tube excision at the time of hysterectomy.

### Summary

This 34-year-old female sustained a ruptured tubal pregnancy six years following a total vaginal hysterectomy. In retrospect, in spite of previous diagnosis of colitis and cholecystitis, the symptoms on this admission were consistent with those of ruptured ectopic pregnancy. This diagnosis was not considered preoperatively because the patient had had a hysterectomy. The awareness that this condition can occur, although rare, and the inclusion of a urinary chronic gonadotropin test in the initial evaluation of the patient with these symptoms will lead to earlier diagnosis and surgical correction of this serious problem.



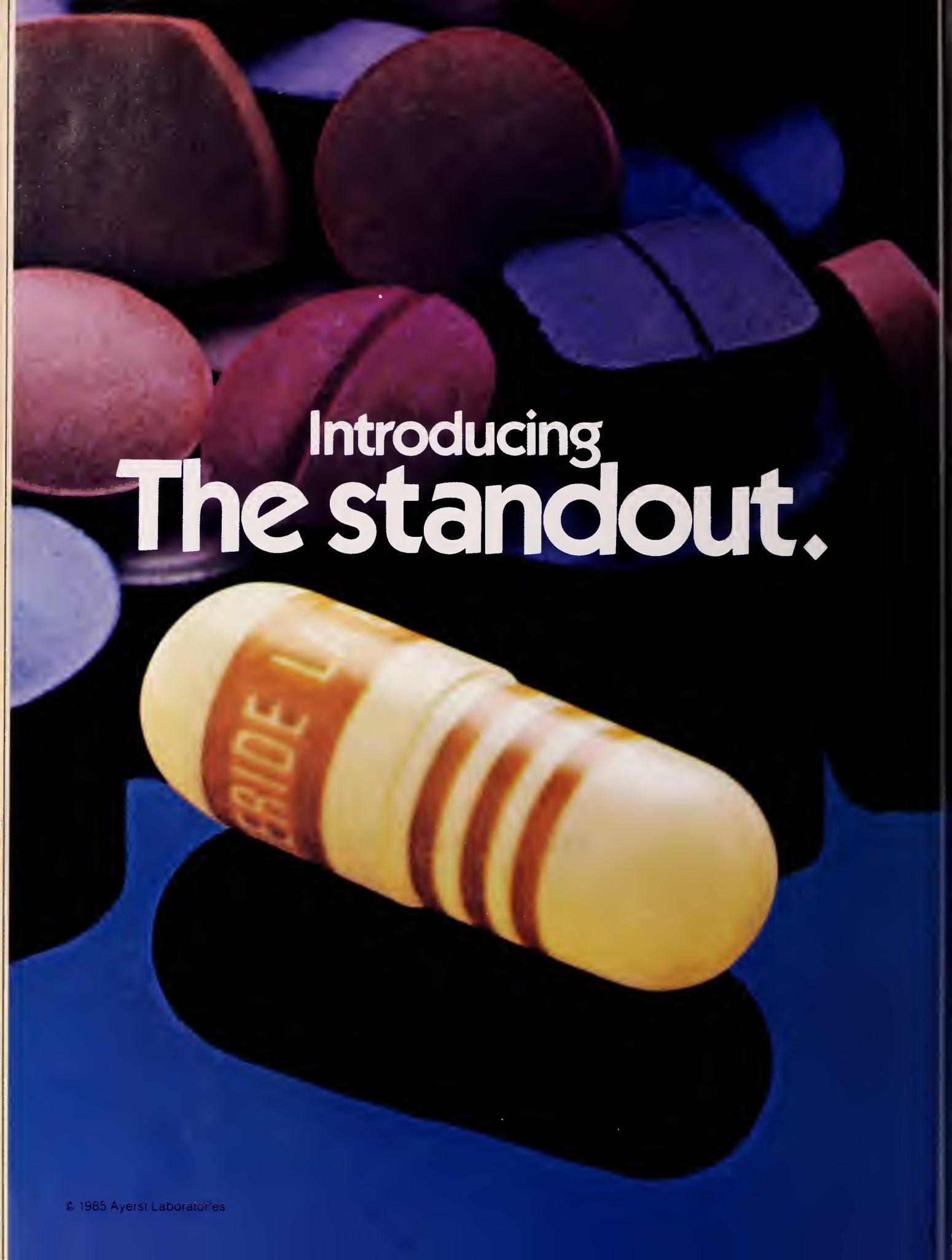
P.O. Box 2038 (39401)

### Reference:

1. Zollie, Alexander; Ricko, Joyce M.: Ectopic Pregnancy Months and Years After Hysterectomy. *Archives of Surgery*, July 1982, vol. 117:962-964.



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No. 455—Each INDERIDE® LA 80/50 Capsule contains Propranolol hydrochloride (INDERAL® LA)

Hydrochlorothiazide

No. 457—Each INDERIDE® LA 120/50 Capsule contains Propranolol hydrochloride (INDERAL® LA)

Hydrochlorothiazide

No. 459—Each INDERIDE® LA 160/50 Capsule contains Propranolol hydrochloride (INDERAL® LA)

Hydrochlorothiazide

INDERIDE LA is indicated in the management of hypertension.

This fixed-combination drug is not indicated for initial therapy of hypertension. If the fixed combination represents the dose titrated to the individual patient's needs, therapy with the fixed combination may be more convenient than with the separate components.

**CONTRAINDICATIONS**

**Propranolol hydrochloride (INDERAL®):**

Propranolol is contraindicated in: 1) cardiogenic shock; 2) sinus bradycardia and greater than first degree block; 3) bronchial asthma; 4) congestive heart failure (see **WARNINGS**) unless the failure is secondary to a tachyarrhythmia treatable with propranolol.

**Hydrochlorothiazide:**

Hydrochlorothiazide is contraindicated in patients with anuria or hypersensitivity to this or other sulfonamide-derived drugs.

**WARNINGS**

**Propranolol hydrochloride (INDERAL®):**

**CARDIAC FAILURE.** Sympathetic stimulation may be a vital component supporting circulatory function in patients with congestive heart failure, and its inhibition by beta blockade may precipitate more severe failure. Although beta blockers should be avoided in overt congestive heart failure, if necessary, they can be used with close follow-up in patients with a history of failure who are well compensated and are receiving digitalis and diuretics. Beta-adrenergic blocking agents do not abolish the inotropic action of digitalis on heart muscle.

**IN PATIENTS WITHOUT A HISTORY OF HEART FAILURE** continued use of beta blockers can in some cases, lead to cardiac failure. Therefore, at the first sign or symptom of heart failure, the patient should be digitalized and/or treated with diuretics and the response observed closely, or propranolol should be discontinued (gradually if possible).

**IN PATIENTS WITH ANGINA PECTORIS.** there have been reports of exacerbation of angina and, in some cases, myocardial infarction following abrupt discontinuance of propranolol therapy. Therefore, when discontinuance of propranolol is planned the dosage should be gradually reduced and the patient carefully monitored. In addition when propranolol is prescribed for angina pectoris, the patients should be cautioned against interruption or cessation of therapy without the physician's advice. If propranolol therapy is interrupted and exacerbation of angina occurs, it usually is advisable to reinstitute propranolol therapy and take other measures appropriate for the management of unstable angina pectoris. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease who are given propranolol for other indications.

**THYROTOXICOSIS.** Beta blockade may mask certain clinical signs of hyperthyroidism. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. Propranolol does not distort thyroid function tests.

**IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME,** several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case this resulted after an initial dose of 5 mg propranolol.

**MAJOR SURGERY.** The necessity or desirability of withdrawal of beta-blocking therapy prior to major surgery is controversial. It should be noted, however, that the impaired ability of the heart to respond to reflex adrenergic stimuli may augment the risks of general anesthesia and surgical procedures.

**Nonallergic Bronchospasm (eg, chronic bronchitis, emphysema)—PATIENTS WITH BRONCHOSPASTIC DISEASES SHOULD, IN GENERAL, NOT RECEIVE BETA BLOCKERS.** Inderal should be administered with caution since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of beta receptors.

**DIABETES AND HYPOGLYCEMIA.** Beta-adrenergic blockade may prevent the appearance of certain premonitory signs and symptoms (pulse rate and pressure changes) of acute hypoglycemia in labile insulin-dependent diabetes. In these patients, it may be more difficult to adjust the dosage of insulin. Hypoglycemic attacks may be accompanied by a precipitous elevation of blood pressure.

**Hydrochlorothiazide:**

Inderide should be used with caution in severe renal disease. In patients with renal disease Inderide may precipitate azotemia. In patients with impaired renal function, cumulative effects of the drug may develop.

Inderide should also be used with caution in patients with impaired hepatic function or progressive liver disease, since minor alterations of fluid and electrolyte balance may precipitate hepatic coma.

Inderide may add to or potentiate the action of other antihypertensive drugs. Potentiation occurs with ganglionic or peripheral adrenergic-blocking drugs.

Sensitivity reactions may occur in patients with a history of allergy or bronchial asthma.

The possibility of exacerbation or activation of systemic lupus erythematosus has been reported.

**PRECAUTIONS**

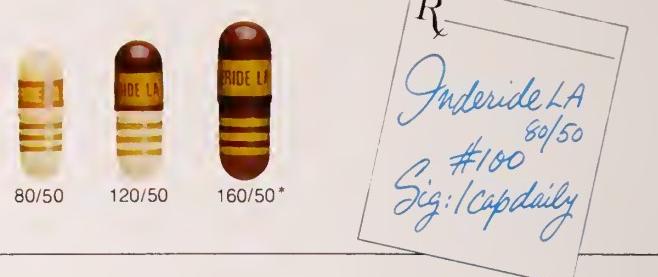
**Propranolol hydrochloride (INDERAL®):**

GENERAL: Propranolol should be used with caution in patients with impaired hepatic or renal function. Propranolol is not indicated for the treatment of hypertensive emergencies.

Beta-adrenoceptor blockade can cause reduction of intraocular pressure. Patients should be told that propranolol may interfere with the glaucoma screening test. Withdrawal may lead to a return of increased intraocular pressure.

**CLINICAL LABORATORY TESTS.** Elevated blood urea levels in patients with severe heart disease; elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase.

**DRUG INTERACTIONS.** Patients receiving catecholamine-depleting drugs such as reserpine should be closely observed if propranolol is administered. The added catecholamine-blocking action may produce an excessive reduction of resting sympathetic nervous activity, which may result in hypotension, marked bradycardia, vertigo, syncopal attacks, or orthostatic hypotension.



**CARCINOGENESIS, MUTAGENESIS, IMPAIRMENT OF FERTILITY.** Long-term studies in animals have been conducted to evaluate toxic effects and carcinogenic potential. In 18-month studies in both rats and mice employing doses up to 150 mg/kg/day, there was no evidence of significant drug-induced toxicity. There were no drug-related teratogenic effects at any of the dosage levels. Reproductive studies in animals did not show any impairment of fertility that was attributable to the drug.

**PREGNANCY.** Pregnancy Category C. Propranolol has been shown to be embryotoxic in animal studies at doses about 10 times greater than the maximal recommended human dose. There are no adequate and well-controlled studies in pregnant women. Propranolol should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

**NURSING MOTHERS.** Propranolol is excreted in human milk. Caution should be exercised when propranolol is administered to a nursing mother.

**PEDIATRIC USE.** Safety and effectiveness in children have not been established.

**Hydrochlorothiazide:**

GENERAL: Periodic determination of serum electrolytes to detect possible electrolyte imbalance should be performed at appropriate intervals.

All patients receiving thiazide therapy should be observed for clinical signs of fluid or electrolyte imbalance, namely, hyponatremia, hypochloremic alkalemia, and hypokalemia. Serum and urine electrolyte determinations are particularly important when the patient is vomiting excessively or receiving parenteral fluids. Medication such as digitalis may also influence serum electrolytes. Warning signs irrespective of cause are: dryness of mouth, thirst, weakness, lethargy, drowsiness, restlessness, muscle pains or cramps, muscular fatigue, hypotension, oliguria, tachycardia, and gastrointestinal disturbances such as nausea and vomiting.

Hypokalemia may develop, especially with brisk diuresis when severe cirrhosis is present or during concomitant use of corticosteroids or ACTH.

Interference with adequate oral electrolyte intake will also contribute to hypokalemia. Hypokalemia can sensitize or exaggerate the response of the heart to the toxic effect of digitalis (eg, increased ventricular irritability). Hypokalemia may be avoided or treated by use of potassium supplements such as lozenges with a high potassium content.

An chloride deficit is generally mild and usually does not require specific treatment except under extraordinary circumstances (as in liver or renal disease). Dilutional hyponatremia may occur in edematous patients in hot weather. Appropriate therapy is water restriction, rather than administration of salt, except in rare instances when the hyponatremia is life-threatening. In actual salt depletion, appropriate replacement is the therapy of choice.

Hyperuricemia may occur or frank gout may be precipitated in certain patients receiving thiazide therapy.

Insulin requirements in diabetic patients may be increased, decreased, or unchanged. Diabetes mellitus which has been latent may become manifest during thiazide administration. If progressive renal impairment becomes evident, consider withholding or discontinuing diuretic therapy.

Thiazides may decrease serum PBI levels without signs of thyroid disturbance.

Calcium excretion is decreased by thiazides. Pathologic changes in the parathyroid gland with hypercalcemia and hypophosphatemia have been observed in a few patients on prolonged thiazide therapy. The common complications of hyperparathyroidism such as renal lithiasis, bone resorption, and peptic ulceration have not been seen. Thiazides should be discontinued before carrying out tests for parathyroid function.

**DRUG INTERACTIONS.** Thiazide drugs may increase the responsiveness to tubocurarine.

The antihypertensive effects of thiazides may be enhanced in the postsympathectomy patient. Thiazides may decrease arterial responsiveness to norepinephrine. This diminution is not sufficient to preclude effectiveness of the pressor agent for therapeutic use.

**PREGNANCY.** Pregnancy Category C. Thiazides cross the placental barrier and appear in cord blood. The use of thiazides in pregnancy requires that the anticipated benefit be weighed against possible hazards to the fetus. These hazards include fetal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions which have occurred in the adult.

**NURSING MOTHERS.** Thiazides appear in human milk. If use of the drug is deemed essential, the patient should stop nursing.

**PEDIATRIC USE.** Safety and effectiveness in children have not been established.

**ADVERSE REACTIONS**

**Propranolol hydrochloride (INDERAL®):**

Most adverse effects have been mild and transient and have rarely required the withdrawal of therapy.

**Cardiovascular.** Bradycardia, congestive heart failure, intensification of AV block, hypertension, paresthesia of hands, thrombocytopenic purpura, arterial insufficiency usually of the Raynaud type.

**Central Nervous System.** Lightheadedness, mental depression manifested by insomnia, lassitude, weakness, fatigue, reversible mental depression progressing to catatonia, visual disturbances, hallucinations, an acute reversible syndrome characterized by disorientation for time and place, short-term memory loss, emotional lability, slightly clouded sensorium, and decreased performance on neuropsychometrics.

**Gastrointestinal.** Nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic colitis.

**Allergic.** Pharyngitis and agranulocytosis, erythematous rash, fever combined with aching and sore throat, laryngospasm and respiratory distress.

**Respiratory.** Bronchospasm.

**Hematologic.** Agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura.

**Auto-Immune.** In extremely rare instances, systemic lupus erythematosus has been reported.

**Miscellaneous.** Alopecia, LE-like reactions, psoriasis, rashes, dry eyes, male impotence, and Peyronie's disease have been reported rarely. Oculomucocutaneous reactions involving the skin, serous membranes, and conjunctiva reported for a beta blocker (propranolol) have not been associated with propranolol.

**Hydrochlorothiazide:**

**Gastrointestinal.** Anorexia, gastric irritation, nausea, vomiting, cramping, diarrhea, constipation, jaundice (intrahepatic cholestatic jaundice), pancreatitis, sialadenitis.

**Central Nervous System.** Dizziness, vertigo, paresthesias, headache, xanthopsia.

**Hematologic.** Leukopenia, agranulocytosis, thrombocytopenia, aplastic anemia.

**Cardiovascular.** Orthostatic hypotension (may be aggravated by alcohol, barbiturates or narcotics).

**Hypersensitivity.** Purpura, photosensitivity, rash, urticaria, necrotizing angitis (vasculitis, cutaneous vasculitis), fever, respiratory distress, including pneumonitis, anaphylactic reactions.

**Other.** Hyperglycemia, glycosuria, hyperuricemia, muscle spasm, weakness, restlessness, transient blurred vision.

Whenever adverse reactions are moderate or severe, thiazide dosage should be reduced or therapy withdrawn.

5112/985

# **Neoplastic Meningitis in Hodgkin's Disease: CSF Eosinophilia Following Myelography**

**LODOVICI BALDUCCI, M.D.,  
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**Jackson, Mississippi**

NEOPLASTIC MENINGITIS is generally a late manifestation of malignant diseases, and is observed more often in long term cancer survivors.<sup>1</sup> This complication, however, is very rare in Hodgkin's lymphoma, with only 14 cases reported to date.<sup>2, 3</sup> We describe here an additional case of meningeal involvement in a patient with Hodgkin's disease, in whom a diagnostic myelography induced marked eosinophilia of the cerebrospinal fluid (CSF).

## **Case Report**

A 59-year-old veteran was admitted on November 13, 1983, to the Jackson VA Medical Center with the chief complaints of headache, anorexia, nausea and vomiting, and diplopia.

The patient's past history was unremarkable until August 1981 when a diagnosis of 3B mixed cellularity Hodgkin's disease was made at the same hospital. At that time, the patient's B symptoms had been fever and weight loss. He underwent treatment with six courses of nitrogen mustard, vincristine, procarbazine and prednisone (MOPP) and was judged to be in clinical complete remission in March 1982.

In July 1983 the patient underwent a new workup for fever, night sweats and 12 lbs weight loss. Biopsy of a left supraclavicular lymph node showed lymphocyte depletion Hodgkin's disease. Gallium scan revealed diffuse involvement of mediastinal and retroperitoneal lymph nodes. He received two more courses of MOPP, after which chemotherapy had to be withheld due to long lasting myelodepression.

On admission the patient appeared chronically ill, but oriented and in no acute distress. No lymph nodes were palpable. Neurological exam revealed weakness of the V1 right cranial nerve and right

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*The authors describe the case of a patient with mixed cellularity Hodgkin's disease who developed meningeal metastases. Myelography induced marked eosinophilia of the cerebrospinal fluid. The incidence and clinical presentation of neoplastic meningitis in Hodgkin's disease and the differential diagnosis of CSF eosinophilia are reviewed.*

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hemiparesis. Pinprick sensation was absent on the right lower extremity. Plantar reflexes were bilaterally normal. On admission the white cell count was 10800/ $\mu$ l with 90% neutrophils, 8% lymphocytes and 2% monocytes, the hematocrit was 31.6 and the platelets were 245000/ $\mu$ l. The only abnormal serum chemical value was the alkaline phosphatase (282 IU/l). The brain CT scan was negative for intracranial metastases, and on November 15, 1983, a diagnostic myelography was performed to rule out spinal cord compression. As the examination of cytocentrifuge preparation of the CSF showed possibly neoplastic cells, a lumbar puncture was repeated two days later and at this time malignant cells were definitely identified (see Figure 1). The chemical and cellular composition of the CSF prior to and following myelography are shown in Table 1. Marked eosinophilia of the second CSF sample was also evident on cytocentrifuge preparation (see Figure 2). Stains and cultures of the CSF for bacteria and fungi were negative. Treatment with oral dexamethasone was started on November 18, 1983 and spinocranial axis radiotherapy on November 22, 1983. Progressive improvement of

From the VA Medical Center, Jackson, MS

headache, nausea, diplopia and weakness occurred.

On December 3, 1983, the patient developed a hyperglycemic non-ketotic hyperosmolar coma, likely secondary to steroid treatment, which resolved with insulin therapy. At the same time thrombocytopenia and neutropenia were recognized which required discontinuance of radiation therapy. The patient was discharged on December 20, 1983, in improved neurological status, but with persistent thrombocytopenia (16000/ $\mu$ l). A  $^{67}\text{Ga}$  scan performed prior to discharge revealed presence of active disease in the mediastinum and in the abdomen.

On January 5, 1984, the patient was readmitted to the hospital with confusion, hypotension and flaccid paraparesis. He also had pancytopenia (hematocrit

22, white cell count 1300/ $\mu$ l, platelet 8000/ $\mu$ l), which prevented any form of cytotoxic treatment. Although the hypotension was improved by fluids and blood transfusions, there was no change in the neurological condition. On January 7, 1984 the patient developed fever with negative blood, sputum, urine, nose and throat and skin cultures. The fever failed to abate following treatment with gentamicin, ticarcillin and cefazolin, and the patient expired on January 15, 1984. Permission for autopsy was not granted. The presumptive cause of death was septicemia in neutropenic patient versus neoplastic meningitis.

#### Discussion

Three aspects of this case deserve comment as they are poorly documented in the medical literature: evolution in histology of Hodgkin's disease, development of neoplastic meningitis in this malignancy and changes in CSF cellular composition induced by contrast medium.

In 1982 Grogan et al reported the results of the autopsies of 124 patients with an initial diagnosis of Hodgkin's disease.<sup>4</sup> Of 98 patients with residual tumor, 76 had lymphocyte depletion histologic type, a type seen at initial diagnosis in only 17 subjects. Therefore, progression to a more malignant form of Hodgkin's disease must be assumed for a large portion of those patients who died of their malignancy. Despite autopic evidence for histological progression, the incidence of histological changes recognized at relapse of Hodgkin's disease is still unestablished, because only few studies involving a limited number of patients explored this problem.<sup>5, 6</sup> Dolginow and Colby reported histological transformation in 18 of 30 patients with mixed cellularity Hodgkin's disease who had relapsed in previously irradiated lymph nodes.<sup>5</sup> However, in only 3 of these 41 patients (5%), the change was toward a more malignant neoplasm (lymphocyte depletion). In 56 patients who had relapses outside irradiated areas, Colby and Warnke described 20 instances of histologic transformation.<sup>6</sup> Again, in only one case was there progression to the lymphocyte depletion histology. Evolution toward lymphocyte depletion Hodgkin's disease appears to be a common terminal event, rarely recognized at the time of first relapse, and it probably indicates a poor prognosis.

A total of 58 instances of central nervous system involvement and 14 instances of pure meningeal involvement by Hodgkin's disease have now been described.<sup>2, 3, 7</sup> The rarity of central nervous system complications in Hodgkin's disease is surprising, given the excellent survival obtained in this malig-

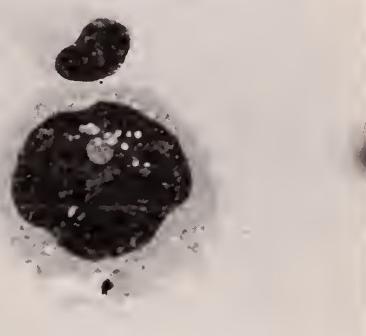


Figure 1: Malignant-looking histiocyte detected in the CSF cytocentrifuge preparation after the second lumbar puncture (Wright-Giemsa  $\times 100$ ).

Figure 2: Low power view of the CSF cytocentrifuge preparation after the second lumbar puncture. Prominent eosinophilia is present (Wright-Giemsa  $\times 40$ ).

TABLE 1  
CHEMICAL AND CELLULAR COMPOSITION OF THE CSF PRIOR TO  
MYELOGRAM (11/15/83) AND 2 DAYS LATER (11/17/83)

	<i>Protein</i>	<i>Glucose</i>	<i>White Cell</i>	<i>Lymphocyte</i>	<i>Monocyte</i>	<i>Eosinophils</i>
11/15/83	948 mg/dl	8 mg/dl	22/ $\mu$ l	20	2	0
11/17/83	1187 mg/dl	5 mg/dl	28/ $\mu$ l	13	1	14

TABLE 2  
SUMMARY OF CLINICAL CHARACTERISTICS AND CSF ANALYSIS  
OF 9 PATIENTS WITH MENINGEAL HODGKIN'S DISEASE  
REPORTED IN THE LITERATURE

<i>Case</i>	<i>Histology</i>	<i>Presence of Extranervous Disease</i>	<i>Treatment</i>	<i>Outcome</i>	<i>Glucose (mg/dl)</i>	<i>Protein (mg/dl)</i>	<i>CSF Cells/<math>\mu</math>l</i>	<i>Eosinophils (%)</i>	<i>Cytology</i>
1	MC	Yes	RT	I	—	—	255/ $\mu$ l	95	+
2	NS	Yes	ITMTX	I	8	160	163	39	+
3	MC	Yes	ITMTX + RT	I	30	85	18	0	+
4	MC	Yes	ITMTX	P	28	270	91	0	+
5	MC	Yes	ITMTX	I	58	91	90	30	—
6	MC	Yes	ITMTX	P	10	25	34	0	+
7	MC	Yes	ITMTX	U	8	224	33	31	—
8	MC	Yes	ITMTX + RT	I	<20	1500	38	0	+
9	MC	No	ITMTX	I	10	392	490	82	+

Abbreviations:  
MC = Mixed Cellularity  
NS = Nodular Sclerosis  
RT = Radiotherapy

ITMTX = Intrathecal Metotrexate  
I = Improved  
P = Progressive

U = Unknown

nancy. In other neoplastic diseases, such as acute lymphoblastic leukemia, non Hodgkin's lymphoma, small cell lung cancer and breast cancer, achievement of prolonged survival is fraught with an increased incidence of central nervous system and meningeal metastases.<sup>1</sup> Two clinical and biological peculiarities of Hodgkin's disease may account for this difference. One factor is the high percentage of pathological complete remissions obtained with chemotherapy and radiotherapy. Complete sterilization of every site of malignancy prevents late relapse to other organs, including the central nervous system. The other is the tendency of Hodgkin's disease to spread via lymphatics rather than hematogenously.<sup>8</sup> As the metastatic seeding of the central nervous system generally occurs by the hematogenous pathway, this organ may be sheltered from invasion by Hodgkin's disease.

The clinical characteristics and the CSF analysis

of nine patients with meningeal involvement from Hodgkin's disease previously described in the literature are summarized in Table 2. Mixed cellularity was the histologic type of the disease more commonly complicated by neoplastic meningitis. The prevalence of mixed cellularity histology may be due to its frequency (second only to nodular sclerosis) and to its trend for early hematogenous dissemination.<sup>8</sup> With one exception, neoplastic meningitis developed in patients with active disease outside the central nervous system. In most cases it occurred one year or longer after the original diagnosis. Of the six patients in whom a remission of the meningeal disease was obtained, four died shortly thereafter of their systemic malignancy.

From this paucity of data it is impossible to establish the optimal treatment for meningeal Hodgkin's disease. Both radiation therapy and intrathecal chemotherapy appear to be effective, and it is not

known whether a combination of these two treatment modalities offers any advantages. Examination of the cerebrospinal fluid consistently yielded pleocytosis, increased protein concentration and hypoglycorrachia. These findings in the absence of infection were considered diagnostic in two patients with negative cytology. In two patients with positive cytology typical Reed Sternberg cells were not detected but malignant looking histiocytes were seen, similar to the cell shown in Figure 1.

Cerebrospinal fluid eosinophilia of different degrees was reported in five patients and was not always accompanied by peripheral eosinophilia. The pathogenesis of this abnormality is intriguing and unclear. In our case the time relationship between myelography and appearance of CSF eosinophilia seems to indicate a pathogenetic role for the iodinated contrast medium. These media are known to induce release of anaphylactogenic substances from mast cells, which are eosinotropic.<sup>9</sup> In support of this hypothesis injection of foreign proteins into the CSF may cause CSF eosinophilia.<sup>10</sup>

Kuberski, in 1979, reviewed the causes of CSF eosinophilia.<sup>10</sup> These included parasitic, fungal, bacterial and viral infections, malignancies, foreign material in the central nervous system, multiple sclerosis, allergic reactions and panarteritis nodosa. Myeloproliferative disorders have since been added to this list.<sup>11</sup> Interestingly, myelography as a cause

of CSF eosinophilia has not been previously reported.



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# Disseminated Intravascular Coagulation in Patients with Craniocerebral Trauma

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DISSEMINATED INTRAVASCULAR coagulation (DIC) has been recognized as a sequela of head trauma for over 20 years. More recently, our increasing knowledge of the pathophysiology of head injury and improved management of these patients has led us to further understanding of this common but serious complication. By definition, DIC results from a pathological initiation of the coagulation cascade. This causes the formation of microfibrin thrombi within the small blood vessels, consumption of platelets and clotting factors, and activation of the fibrinolytic system.

The principal target protein in DIC is fibrinogen. Fibrinogen is converted to fibrin which forms the clot matrix. In the coagulation cascade, several factors can be activated which ultimately lead to the activation of factor X. Factor X (or Stuart factor), when activated, cleaves factor II (prothrombin) into thrombin, which catalyzes the reaction forming fibrin from fibrinogen. These fibrin polymers combine with activated platelets to form microthrombi (or clots). Thrombin also converts plasminogen to plasmin and initiates the fibrinolytic pathway which causes degradation of fibrin to fibrin-split products (FSP). This double initiation of clot formation and clot lysis frequently leads to a "vicious cycle" phenomenon that rapidly consumes the clotting factors.

There are three mechanisms by which brain injury activates the cascade and causes DIC (see Figure 1).<sup>1, 2</sup> The endothelial injury that frequently occurs in craniocerebral trauma releases collagen, which stimulates factor XII (Hageman's factor) and initiates the intrinsic cascade. Secondly, the extrinsic pathway may be activated by the brain tissue thromboplastin, which causes the initiation of factor X. A third mechanism is by the release of phospholipid from platelets and red cells, converting prothrombin

*Disseminated intravascular coagulation (DIC) and fibrinolysis is a well recognized sequela of cerebral injury. It is estimated that up to 50% of patients with head injury exhibit evidence of DIC and that the mortality in these patients is increased three-fold. It is postulated that brain thromboplastin enters the circulation via the disrupted blood-brain barrier and triggers the coagulation cascade. Therefore, the coagulopathy is more prevalent in cases with destructive brain lesions. The authors present a discussion of the pathophysiology of disseminated intravascular coagulation in cerebral trauma and comment on the evaluation and treatment of this entity.*

to thrombin and initiating the coagulation cascade.

The thrombin formed by the coagulation cascade also stimulates the fibrinolytic system by converting plasminogen to plasmin. Plasmin causes dissolution of the fibrin clot into various degradation products (fibrin-split products) which may be detected in the plasma. Plasminogen may also be activated directly by brain tissue injury. In the central nervous system, it is known that a large concentration of plasminogen activators is located in the highly vascular connective tissue of the choroid plexus and the meninges; the brain substance itself has a much lower concentration of these substances.<sup>3</sup>

The brain is a rich source of thromboplastin and, when injured, it releases coagulation factors into the blood stream and provokes abnormalities of hemostasis.<sup>4</sup> After craniocerebral trauma, brain tissue emboli have been found in the lumen of cerebral venous sinuses, pulmonary arteries, and lung tissue.<sup>1, 5</sup> It is proposed that a sudden traumatic

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release of brain tissue thromboplastin into the blood stream initiates the cascade via the extrinsic pathway and causes DIC. This hypothesis is also supported by the observation of increased concentration of myelin basic protein in the serum (a serum specific protein from cerebral tissue). Therefore, it has been theorized that in patients with coagulation defects, the cerebral venous blood may manifest more of these abnormalities than systemic arterial or venous blood.<sup>6</sup>

### Criteria for DIC

Clinically, six laboratory tests are most frequently performed in evaluating patients with disseminated intravascular coagulation: (1) the platelet count; (2) fibrinogen level; (3) fibrin degradation products (FDP or FSP); (4) prothrombin time (PT); (5) partial thromboplastin time (PTT); and (6) thrombin time.<sup>6</sup> In DIC, the presence of FSP is the most frequent abnormality and the most reliable finding of an activated clotting and fibrinolytic mechanism. The classic coagulation studies (PT and PTT) do not become abnormal unless the clotting factors are diminished to approximately 20-30% of normal.<sup>6</sup> The decrease in the platelet count is the least frequently noted abnormality and usually the first to return to normal after correction of DIC. Most often the hematocrit level decreases as a result of the consumption coagulopathy. Clinically, patients with DIC manifest diffuse bleeding from sites of trauma, such as lacerations, abrasions, and IV sites.

Various criteria have been used to diagnose DIC in head injury patients. Although the presence of one

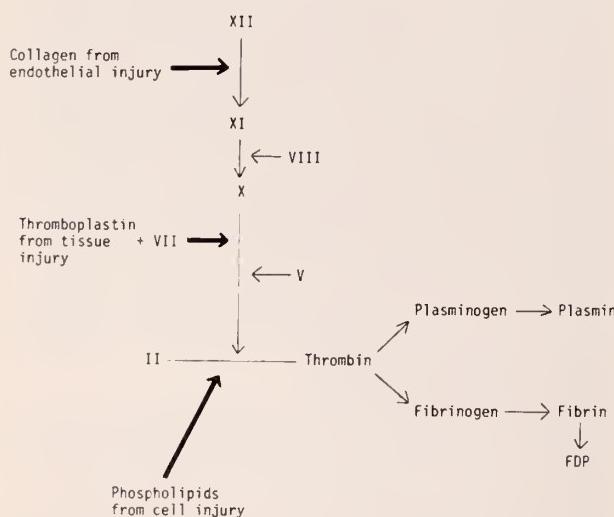


Figure 1. Modified coagulation pathway with emphasis on pathological initiation in head injury.

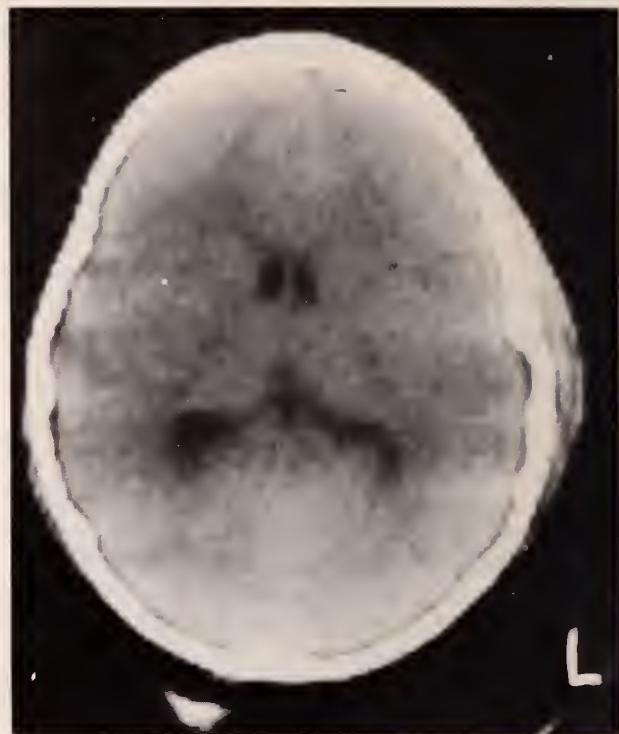


Figure 2. Unenhanced CT scan demonstrating mass effect. There is no evidence of hemorrhage.

or two abnormalities of the above mentioned tests are commonly used to determine DIC, in Miner's study of head injured children DIC was not diagnosed unless three of the tests became abnormal.<sup>6</sup> Also important in the diagnosis of DIC after head injury is the interval between injury and the time at which the laboratory evaluation is performed.

### Case Report

A two-year-old black female was referred to the University Medical Center after she fell out of the front seat of a car and the right front tire ran over her head. She was unresponsive except to deep pain and required fluid resuscitation for hypotension secondary to hemorrhage. She had profuse bleeding from her right ear and nose which required nasal packing. Initial laboratory data revealed a PT of 17.5 sec (control 10.1 sec) and a PTT of greater than 150 sec (control 30 sec). The platelet count was 232,000 but dropped to 63,000 approximately four hours after admission. The hematocrit was 24 and fibrinogen level was 114 mg/dl. The fibrin split products were greater than 40 ug/ml.

The unenhanced computerized tomographic scan was consistent with a depressed fracture of the left mid-calvarium (see Figure 2). There was no significant intracranial hemorrhage or mass noted.

The patient was stabilized and given replacement blood and platelets and repeat studies were normal. Her neurologic status deteriorated and a repeat CT scan showed hemorrhage in all the ventricles and the right cerebellar hemisphere (see Figure 3).

Despite resuscitative measures, she lost all evidence of cerebral function and expired.

#### Review of Literature

DIC following head injury has been known to occur for over 20 years. It is postulated that brain tissue thromboplastin released into the systemic circulation, through ruptured venous channels and disrupted blood-brain barrier, activates the coagulation cascade.<sup>4</sup> It is also known that head injuries with penetrating trauma and brain laceration have a higher incidence of DIC than those with mass lesions or diffuse injury. Interestingly, DIC is also known to occur with other cerebral insults, such as strokes, abscesses, and tumors.

It is estimated that up to three-fourths of patients with severe head trauma manifest abnormalities in their coagulation studies during the initial episode. The incidence of the coagulopathy varies from 12-86% but most studies report an incidence of 40-60%. This wide variance is explained by the number of criteria used to diagnose DIC, the severity of injury, and the time between injury and laboratory evaluation. In Miner's study of 87 head-injured children,

32% had abnormalities on three of the coagulations tests.<sup>6</sup> If DIC were defined as an abnormality of only one of the coagulation studies, then 86% of the children with penetrating head trauma in this series had evidence of DIC.

The mortality in Miner's study of children with severe head injury was 3.5 times greater if DIC was present. In children with moderately severe head injury the mortality was 2.7 times greater if DIC was present. Other studies confirm this finding of a higher incidence of DIC with penetrating head injuries rather than with other types of head trauma.

At the University Medical Center, our preliminary observation parallels these data in children and is also confirmed in our adult population suffering craniocerebral trauma. It is estimated that 10-30% of our head injured patients manifested DIC, depending on the severity of injury. Due to the distance that patients are transported in Mississippi the coagulation studies are often not obtained within the recommended 2-4 hours post injury period for optimal diagnosis.

#### Treatment

In the treatment of head injury patients with DIC, it must be remembered that the traumatic release of thromboplastin which led to the coagulopathy is short-lived.<sup>4</sup> Unless a massive cerebral tissue embolus has occurred or the "vicious cycle" phenomenon is initiated, the clotting abnormalities are

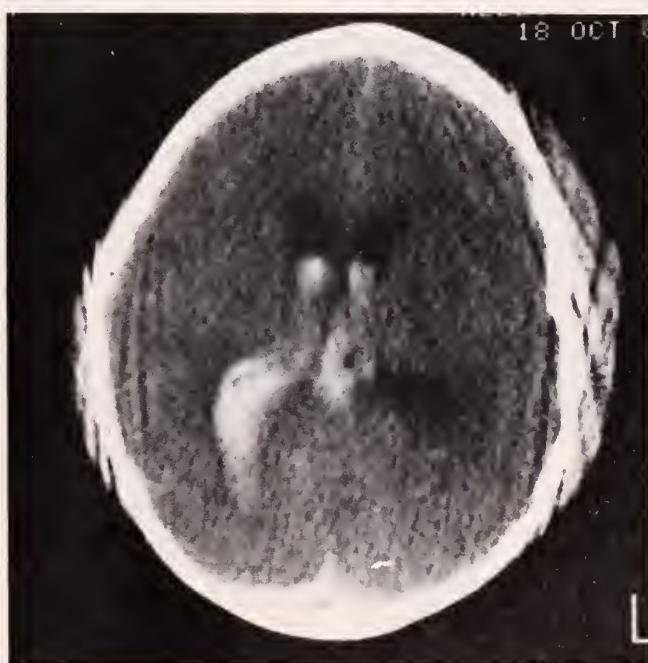
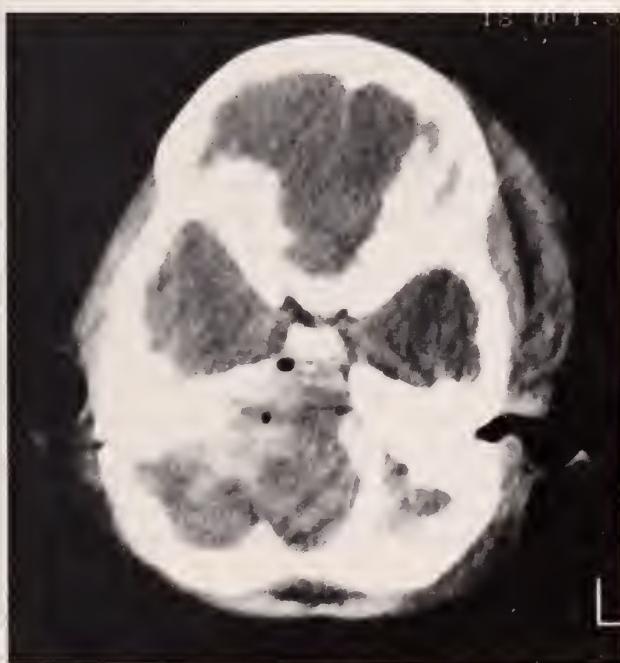


Figure 3. Unenhanced CT scan showing massive intraventricular and right cerebellar hemorrhage.

spontaneously normalized. In these patients, DIC rarely requires acute therapy unless massive loss of clotting factors and platelets has occurred. Most often, the abnormality corrects itself, but in some cases heparin therapy or transfusions of fresh clotting factors and platelets are required.

At the University Hospital, our policy is to replace blood volume and clotting factors if the patient is actively bleeding or if surgery is anticipated. Otherwise, a conservative management plan is followed and the clotting factors are allowed to normalize spontaneously.

### Summary

The pathophysiology of disseminated intravascular coagulation in craniocerebral trauma is presented. The frequency, etiology, and possible outcomes in these cases have been reviewed along with an example from the University Medical Center. A

few comments about the evaluation of DIC are mentioned, along with suggestions on management of this entity in head injured patients.

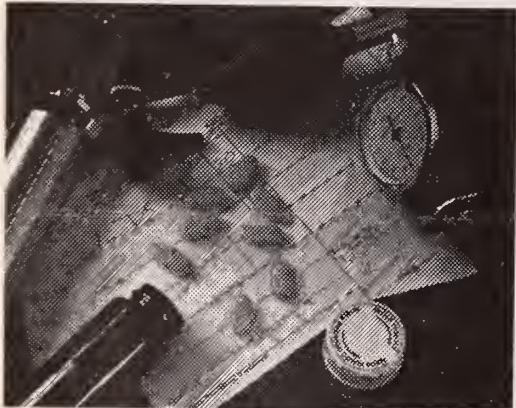


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## GOOD NEWS FOR DOCTORS



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### Year-End Tax Planning

EFFECTIVE FINANCIAL PLANNING requires you to conduct an annual year-end review of your tax situation in order to determine what last-minute adjustments may reduce your taxes. Your opportunity for tax planning generally ends on December 31 (notable exceptions are your contributions to IRAs and retirement plans). Thus, when you compile records and meet with your tax return preparer some two or three months after the close of the tax year, it is far too late to do anything except file your tax return on the basis of the events that took place in the preceding year. Failure to effectively utilize year-end tax planning opportunities can result in your paying more in income tax.

An important aspect of year-end tax planning is a comparison of your expected 1985 tax liability with your projected 1986 tax liability. Comprehensive tax reform proposals now pending before Congress make this comparison particularly difficult in 1985 as the final form of any new law probably will not be known until after year-end.

The following is a brief summary of some of the major points of tax proposals to Congress that may affect you in 1986. When and whether any or all of these proposed changes become law is uncertain at this time.

1. Lower tax brackets to a top tax rate of 35% for individuals.
2. Increase personal exemptions to \$2,000 each.
3. Increase zero bracket amounts for joint returns to \$4,000.
4. Elimination of the deduction of state and local taxes.
5. Limitations on the deductibility of personal (non-business) interest.
6. Reduction of long-term capital gains exclusion to 50% which coupled with the 35% tax rate would actually lower the effective rate on capital gains to 17½%.
7. Elimination of investment tax credits.

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This article was prepared by the tax department of Chapman and Company, Certified Public Accountants, Jackson, Mississippi, the independent accountants for the Mississippi State Medical Association.

8. Revision of current methods of depreciation to curb accelerated deductions in the year property is placed in service.
9. Elimination of income averaging in computing tax.
10. Revision of retirement plan deductions. IRA contributions may be increased while contributions to other plans may be cut back.

The bottom line for year-end tax planning decisions is to time your income to fall in years when it will be subject to the lowest tax, and to time deductible expenses to fall in years when it will offset income subject to a higher tax rate. You should also keep in mind, if you postpone a tax, you have an interest-free loan from the government for the amount of the postponed tax. This means that, if you expect to be in the same or lower tax bracket in 1986 as you are in 1985, you should defer the receipt of income to the latter year and accelerate deductions to the earlier year.

In light of the "revenue neutral" aspects of the current tax proposals, wherein the decreases in tax revenue to the government from lower tax rates is to be offset by increased tax revenues from elimination or reduction of tax deductions and credits, it appears that deferral of income to 1986 and the acceleration of deductions to 1985 is more important than ever. The following are some year-end maneuvers that you may consider to accomplish this tax planning strategy.

1. Accelerate your state income tax deduction by:
  - a. increasing your state income tax withholding from wages, or
  - b. prepaying your 1985 final state income tax estimate before year-end; you may consider increasing this estimate for any additional state income tax you expect to owe when filing your 1985 return due April 15, 1986.
2. Accelerate other state and local tax deductions by:
  - a. prepaying real estate taxes before year-end even though they are not due until February 1, 1986, and
  - b. maximizing your sales tax deductions by making anticipated major purchases before

year-end: sales tax paid on autos and other motor vehicles can be deducted in addition to the standard general sales tax deduction from the IRS tables.

3. Accelerate miscellaneous deductions such as accountants' tax preparation fees, professional dues, etc. by paying before year-end.
4. Take advantage of the expiring residential energy credit (\$300 maximum). December 31, 1985 is the last date to qualify for the 15% credit for such things as insulation, storm windows and doors, caulking, and weather stripping. The 40% renewable energy source credit (\$4,000 maximum) for solar, wind, and geothermal energy equipment installed in your residence also expires December 31.
5. Make planned business equipment purchases before the end of the year to get your depreciation write-off and investment credit in 1985. This also applies to purchases of autos used in business, but be aware that you may trigger recapture of previous write-offs and tax credits.
6. Pay all interest accrued on personal notes before year-end.
7. Establish a corporate or self-employed retire-

ment plan; you have until the time of filing your 1985 tax return to make deductible contributions for 1985.

8. Plan towards making an IRA prior to April 15, 1986, it will still qualify as a 1985 deduction.
9. Make anticipated charitable contributions before year-end. Documented contributions for goods other than cash are deductible for the amount of their estimated value.
10. Review your investment portfolio to determine what action, if any, you need to take prior to year-end to balance your tax position. This is your last opportunity to offset gains and losses in 1985. It is important to note that if your capital losses exceed capital gains, the excess loss is limited to a \$3,000 deduction against other taxable income.

The above year-end tax planning maneuvers are general and not intended to be all inclusive; and accordingly, they may or may not apply to your specific tax situation. Therefore, you should contact your personal tax advisor to determine what course of action is best suited for you.





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## The President Speaking

### Dusty Shoes and One Case to Tell

Ralph L. Brock, M.D.  
McComb, Mississippi

A number of years ago I heard someone say the way you could spot a country doctor at a medical meeting was that he would have dusty shoes and one case to tell you. I try to keep the dust off my shoes, but I do have the one case to tell.

It was in late January 1950 and I was in my sixth month of practice. I was just about to have my 25th birthday, and I was reminded every day of how young I was to be practicing medicine. I was associated with my father and older brother, and their availability for consultation was a frequent source of reassurance to me. But this was the day I was to be on my own.

I was called to the phone as I was finishing rounds at the hospital just before sundown. From the inflection and tone of voice, I figured the age of the caller to be about 16, black, and female. The pitch of her voice was so high and her excitement so great, I thought Prissy from *Gone With the Wind* was on the line.

I kept hearing the same thing over and over: "Mama has had a spell." And I could not get much more out of her. She calmed down a little when I agreed to come see about her mother, and after several attempts, I managed to put together enough instructions to feel reasonably certain that I could find the house.

My new, 1949 solid white, four door, Nash "600" was full of gas, and the black bag I received as a graduation present still had the new shine on it. I was extremely proud of this car. If you don't count the downpayment paid by my father, it was the first car I was paying for by myself. It was washed, as usual, and I did not look forward to getting it muddy, which was getting ready to happen.

It had rained that day, and I left pavement behind as I got past the city limits of McComb heading due west toward Pricedale and Jayess. About five miles out of town I crossed Quin's Bridge. I turned right at "death's crossroads" and nearly slipped in the ditch twice on the next mile of dirt road turned slick from the recent rain. I was relieved to find the house, just about as described by my very excited caller.

There were several cars and trucks in the yard, all which were in sharp contrast to this white Nash that I parked in the first vacant space I could find in front of the house. There was just enough light in the western sky for me to see my way up the steps, across the front porch and to the screen door. It would be several years before

(Continued on page 355)

**JOURNAL OF THE  
MISSISSIPPI STATE  
MEDICAL ASSOCIATION****VOLUME XXVI, Number 12  
DECEMBER 1985****The Scapegoat**

Statistics show that 64 hospitals, or one in every 30 nationwide, closed last year. This may not seem too bad unless you happen to be living in the area where one of those hospitals had to close. Most hospitals are multimillion dollar operations. In our county it is one of the largest employers in the whole area. I would think that this is the way it is in most of the rural areas of our country. Loss of our rural hospitals means loss of close-at-hand, cost effective health care, as well as the loss to the economy of that affected area.

Not only are the small rural hospitals closing, but many of them are being bought up, owned, or managed by large hospitals to be used as satellite or referral centers for them. This is only a stop-gap measure in the demise of the rural hospitals. That needed infusion of capital which they got through being bought out is too short-lived to be of any long range import.

Rural areas do depend heavily on Medicare and Medicaid because of a preponderance of older and disabled people, combined with little industry and the fact that many of the young people go to more urban areas for employment. Due primarily to cutbacks and changes in payments to hospitals through the DRG system, our own state last year had only 22% of rural hospitals operating in the black. This is easy to understand when you realize that Medicare pays California hospitals \$5,700 for the same DRGs for which it pays Mississippi hospitals \$2,000. Do you believe that our expenses are less than half of theirs?? The government must think so.

Here we are in Mississippi with an average hospital cost of \$227 per patient per day, where some other states' average daily cost is \$1200. Room rates in the hospital that I use are under \$100 per day, whereas in some parts of our country they are in excess of \$300 per day. Who do you think gets blamed for Medicare over-spending and over-utilization? Not the high rollers and the big spenders, but we here in Mississippi!

Yes, we here in the southeastern part of the coun-

try and Mississippi in particular, have been singled out by the Medicare people as the worst "abusers" of Medicare and are being dealt with accordingly. We must be punished, disciplined, and have stiffer measures used on us to "whip" us in line.

In Leviticus 16:22 the Lord told Aaron to put all his people's sins onto a goat and banish it forever to uninhabited lands. Oh, how tired I am of us being the scapegoat for the federal government. We would like to help them work out a lot of our troubles, but they neither seek our advice nor listen to much that we have to say.

Please call or write your senators and congressmen and let them know what is going on medically in Mississippi. If you won't do either then at least tear this out and mail it to them.

Thank you, God, for letting me be a family physician in this troubled world.

JOE JOHNSTON, M.D.  
Associate Editor

**THE PRESIDENT SPEAKING**

(Continued from page 354)

rural electrification would reach this house, and the only light I saw was coming from inside.

Several people welcomed me into the house, and it was obvious to me that relatives and neighbors were represented in a mixture of men, women, and children. I entered a room about 20 feet square with an open fire at one end, a double bed at the other, and what appeared to be 18 or 20 people standing and sitting around the walls. One kerosene lamp and the fire supplied just enough light to make out forms, but not faces of these people. I never felt so alone in all my life. I was directed to the patient, and offered a cane bottom chair. I sat down beside the bed.

The patient was a woman in her mid-thirties lying

quietly under a layer of four or five quilts, and she did not seem to be in any distress at all. I took her blood pressure before I said a word. This gave me a little more time to plan my line of questions. There was certainly no hope of privacy, and I wanted to make the best impression possible. There were a number of questions I wanted to ask, but the large audience made me choose them carefully. My first question was, "Do you have any pain?" She nodded her head "yes." "Where do you hurt?" She pointed to her abdomen. I pulled the layers of quilts back far enough to get one hand on her abdomen. My immediate impression was very poor muscle tone, but in the lower abdomen I felt a mass that felt exactly like a five or six month pregnancy. A whole group of questions went through my mind, but I did not want to embarrass her, and I wanted this crowd of people to think that I knew what I was doing. Remember, this was 1950 and even the word "pregnancy" was not used in normal conversation, much less obtaining a menstrual history.

My next, carefully chosen question was, "How long has it been since you had a baby?" Her first

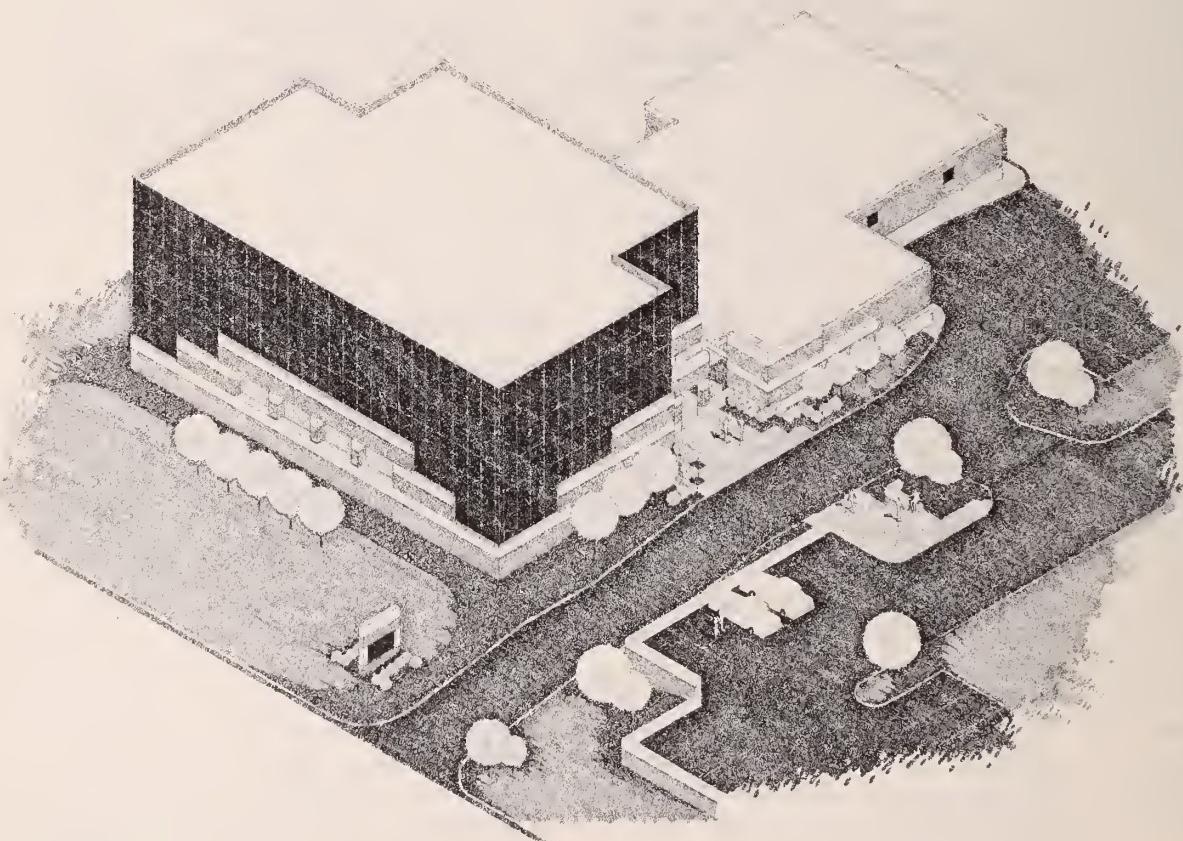
words spoken to me came back promptly: "jes' a few minutes ago!" I pulled the cover back enough to see a perfectly formed, male infant weighing about eight pounds lying quietly between her legs!

The baby was breathing without distress and had not made a sound. The cord was attached and the placenta had not delivered yet.

There was no need and no time for any more questions, and I guess instincts took over for the most part. I have been unable to remember details of what happened next, but I borrowed a piece of string and some scissors and completed the delivery. I made them promise to bring mother and baby into the hospital if the least trouble occurred, and then I made my exit as rapidly as I could.

I must have done a "fair to middlin' job" in their opinion, because they named the baby Charles Ralph!!!

*Below is an architect's drawing of the new MSMA headquarters building. Groundbreaking will take place this month, and construction should be completed in about a year.*



## MEDICAL ORGANIZATION

### New Office Building Construction Begins

Groundbreaking for a new office building to house the MSMA, MSMA Auxiliary, the Medical Assurance Company of Mississippi, and the Mississippi Foundation for Medical Care will take place this month. Construction is scheduled to be completed in about 12 months.

Jones and Thompson Construction Company of Jackson was the successful bidder on the \$2 million-plus project, which will include more than 20,000 square feet of new office space and renovation of the existing building. Cooke, Douglas, Farr of Jackson are architects for the project.

The MSMA House of Delegates approved the building program at the 1984 Annual Session based on recommendations of the Board of Trustees. Architects were subsequently retained to begin the design phase of the proposed building, and negotiations were completed to obtain necessary parking on state and city property adjacent to the existing MSMA building. The Board of Trustees gave a status report on the building program at the 1985 Annual Session and the House of Delegates directed that the project proceed.

Present plans call for the building to be financed through a syndicated limited partnership offered to MSMA members only. This offering will occur in early 1986.

### MSMA Moves Ahead With IPA/HMO Plan

An MSMA sponsored IPA/HMO is on the drawing board based on action of the Board of Trustees at a special called meeting on October 17 in Jackson.

Acting on a recommendation of its Committee to Study Alternative Delivery Systems and with advice of legal counsel, the Board approved a plan to capitalize a Mississippi Physicians Health Insurance Company and Mississippi Physicians Individual Practice Association with voluntary membership contributions and purchase of stock by MSMA members. A presentation of the plan was subsequently made to a statewide advisory committee of MSMA members at a meeting in Jackson on November 13.

Future activities call for a solicitation to join the organizations to be made to MSMA members around December 15. Every MSMA member will receive a prospectus offering stock in the Mississippi Physicians Health Insurance Company and a solicitation to become a member of the Mississippi Physicians Individual Practice Association. A program describing the organizations and their future plans will also be available for presentation at component society and medical staff meetings.

Based on the success of the capitalization and membership phase of the plan approved by the Board of Trustees, the proposed MSMA IPA/HMO should be in a position to offer a product to potential subscribers in early 1986.



*Dr. Ellis Moffitt, MSMA past president and current chairman of the Committee to Study Alternative Delivery Systems, outlines a proposed MSMA-IPA/HMO at a meeting of a statewide advisory committee. The committee met in Jackson on November 13.*



*Members of a statewide advisory committee met in Jackson to hear a presentation concerning the MSMA-sponsored IPA/HMO approved by the Board of Trustees. Capitalization and membership activities will take place beginning this month.*

### **Grant Will Fund Geriatric Education Center**

The University of Mississippi Medical Center has received a \$636,000 grant from the Department of Health and Human Services to establish a Geriatric Education Center.

Project directors are Dr. Ames Tryon, chairman of the Department of Community and Oral Health in the School of Dentistry, and Dr. Harper Hellems, chairman of the Department of Medicine. UMC vice chancellor Dr. Norman Nelson is principal investigator.

The center will provide training in the special problems of the elderly to a core group of faculty representing physicians, nurses, dentists, physical therapists, respiratory therapists, speech and hearing specialists, occupational therapists, pharmacists, psychologists and social workers.

Faculty assigned to the center will also conduct training sessions for health professionals at colleges and hospitals throughout the state.

The center also will serve as an information

source about geriatric issues of interest and concern to health professionals and senior citizens throughout the state.

According to Tryon, Mississippi now ranks 21st among the 50 states in the percentage of the population over 65. Current trends indicate the percentage could go even higher. "Several church groups are establishing retirement communities in the state, developers on the Gulf Coast are planning retirement communities, and there is an increasing number of retired military choosing to live in our state," he said.

Some of the special problems Mississippi faces are that 55 percent of the state's elderly population have incomes below the poverty level and 77 percent have incomes of less than \$5000 per year. Nearly half of the over-65 population lives in isolated, rural areas without easy access to health services.

"The challenges we face in the state in meeting the needs of our aging population provide fertile ground for developing educational models that could have a significant local and national impact," Tryon said.

# *Season's Greetings From the MSMA Auxiliary Board*

On behalf of:

**The American Medical Association Education and Research Foundation**



*May the warmth and goodwill of the season be yours*

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## NEW MEMBERS

AMYX, BARRY C., Jackson. Born Louisville, KY, Nov. 4, 1951; M.D., University of Kentucky College of Medicine, Lexington, 1977; interned one year, University of Kentucky Medical Center, Lexington; residency in psychiatry, Johns Hopkins Hospital, Baltimore, MD, 1978-79, Mental Health Institute, Cherokee, IA 1979-81, and University of South Dakota, Yankton, 1981-83; elected by Central Medical Society.

BALL, G. CHRIS, Jackson. Born New Orleans, LA, Aug. 19, 1956; M.D., University of Mississippi School of Medicine, Jackson, 1981; interned and ob-gyn residency, University of Alabama Medical Center, Birmingham, 1981-85; elected by Central Medical Society.

BONDURANT, SIDNEY W., Grenada. Born Philadelphia, MS, Sept. 19, 1946; M.D., Vanderbilt University School of Medicine, Nashville, 1971; interned University of California Davis Hospital, Sacramento, one year; ob-gyn residency, Vanderbilt Hospital, Nashville, 1980-83; elected by North Central Medical Society.

CALCOTE, ROBERT W., Jackson. Born Natchez, MS, Sept. 5, 1955; M.D., University of Mississippi School of Medicine, Jackson, 1981; interned Lloyd Noland Hospital, Birmingham, AL, one year; dermatology residency, same, 1982-83 and Medical College of Wisconsin, Milwaukee, 1983-85; elected by Central Medical Society.

EVANS, ROBERT M., Jackson. Born Jackson, MS, Oct. 31, 1952; M.D., University of Mississippi School of Medicine, Jackson, 1978; interned and medicine residency, Vanderbilt University Hospital, Nashville, 1978-81; endocrinology fellowship, same, 1982-83; elected by Central Medical Society.

FUCHS, PAUL D., Mound Bayou. Born Pittsburgh, PA, Jan. 12, 1948; M.D., Medical College of South Carolina, Charleston, 1977; interned University of Texas, Galveston, one year; family practice residency, University of Massachusetts Medical Center, Worcester, 1982-84; elected by Delta Medical Society.

GILLESPIE, WILLIAM, M., III, Columbus. Born Meridian, MS, Oct. 1, 1954; M.D., University of Mississippi School of Medicine, Jackson, 1980; interned University of Arkansas, Little Rock, one

year; ophthalmology residency, University Medical Center, Jackson, MS, 1981-84; elected by Prairie Medical Society.

HUNTER, FREDERICK J., Columbus. Born Los Angeles, CA; M.D., Meharry Medical College, Nashville, TN, 1975; interned and ob-gyn residency, Keesler AFB, Biloxi, MS., 1978-82; elected by Prairie Medical Society.

MCDONALD, JUDY M., Natchez. Born Austin, TX, Oct. 11, 1950; M.D., University of Texas Southwestern Medical School, Dallas, 1981; interned and ob-gyn residency, University of Mississippi Medical Center, Jackson, 1981-85; elected by Homochitto Valley Medical Society.

MILLER, EDMUND A., JR., West Point. Born Pittsburgh, PA, Nov. 13, 1953; M.D., University of Mississippi School of Medicine, Jackson, 1979; interned and medicine residency, Mayo Clinic, Rochester, MN, 1979-82; elected by Prairie Medical Society.

PROCTOR, BARBARA J., Jackson. Born New Orleans, Sept. 6, 1955; M.D., University of Mississippi School of Medicine, Jackson, 1981; interned and pathology residency, University Medical Center, Jackson, 1981-85; elected by Central Medical Society.

RUSSELL, RICKY G., Jackson. Born Jackson, MS, Nov. 26, 1954; M.D. University of Mississippi School of Medicine, Jackson, 1980; interned University of Arkansas, Little Rock, one year; ophthalmology residency, University of Mississippi Medical Center, Jackson, 1981-85; elected by Central Medical Society.

SANFORD, W. SCOTT, Starkville. Born Kingsport, TN, July 15, 1952; M.D., University of Tennessee Center for Health Sciences, Memphis, 1977; interned St. Francis East, Memphis, one year; interned and medicine residency, University Medical Center, Jackson, MS, 1982-84; elected by Prairie Medical Society.

WALKER, LINDA K., Jackson. Born Hattiesburg, MS, Aug. 27, 1956; M.D., University of Mississippi School of Medicine, Jackson, 1982; interned and pediatric residency, Vanderbilt, Nashville, TN, 1982-85; elected by Central Medical Society.

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### PARTIAL LIST OF GUEST SPEAKERS

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University of Utah School of Medicine

#### LEO T. CHYLACK, JR., M.D.

Harvard Medical School

#### MANUEL B. DATILES, M.D.

National Eye Institute

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## PERSONALS

JAMES ACHORD of UMC attended the Council on Subspecialty Societies of the American College of Physicians in Toronto, Ontario, Canada.

WILLIAM BATES of UMC was a panelist at a meeting of the American Fertility Society in Chicago.

BLAIR BATSON of UMC spoke at a recent leadership training seminar for the American Academy of Pediatrics in San Antonio, Texas, and was an examiner for the American Board of Pediatrics in New Haven, Connecticut.

R. M. CHILIMIGRAS of Senatobia has been certified as a diplomate of the American Board of Family Practice.

WALLACE CONERLY of UMC spoke at the Southeast Alabama Medical Center in Dothan, in October.

DAVID CRAWFORD of UMC was guest speaker at the New Mexico Cancer Symposium in Albuquerque and presented an exhibit at the meeting of the American College of Surgeons in Chicago.

OWEN EVANS of UMC made a presentation at the Child Neurology Society's 14th annual meeting in Memphis and was guest speaker at the Delta Medical Society meeting in Indianola.

ALAN FREELAND of UMC was visiting professor at the University of Miami, Florida, in October.

MABEL GARNER announces the opening of her office for the practice of medicine at 304 Rodney Road in Port Gibson.

WILFRED GILLIS of UMC recently lectured at a "Heart and Mind" meeting in Omaha, Nebraska.

ARMIN HAERER of UMC presented a paper at the Society of Clinical Neurologists in Napa Valley, California.

FRANK HAYDEN of Poplarville has been elected chief of staff at Pearl River County Hospital.

BOBBY HEATH of UMC presented a paper at a meeting of the Southeastern Pediatric Cardiology Society in Wilmington, North Carolina.

JACK HERRING of Magee has been recertified as a diplomate of the American Board of Family Practice.

JAMES HUGHES of UMC attended a board of trustees meeting of AO-International in Davos, Switzerland in October.

W. C. JONES of Forest was honored upon his retirement from 40 years of medical practice in ceremonies at S. E. Lackey Memorial Hospital.

HOWARD T. KATZ announces the establishment of his practice for physical medicine and rehabilitation at Mississippi Methodist Hospital and Rehabilitation Center in Jackson.

RONALD KRUEGER of UMC presented a paper at the recent Pediatric Urology Conference in Pinehurst, North Carolina.

HERBERT LANGFORD of UMC was in Kyoto, Japan as guest speaker at the 13th annual meeting of the Japanese Association of Acute Medicine and also spoke at a symposium on hypertension in Berlin, West Germany.

LYNN LEATHERWOOD announces the opening of his office for the practice of internal medicine at 1110 Broad Avenue in Gulfport.

ROBERT LITTLE of Biloxi has been elected president of Tulane University Medical Alumni Association.

JAMES MARTIN of UMC was a panelist at the District VII meeting of the American College of Obstetricians and Gynecologists in Knoxville, Tennessee, in October and was guest speaker at the Ross Society Meeting in Williamsburg, Virginia.

G. RODNEY MEEKS of UMC was visiting professor at the University of Tennessee at Knoxville recently.

RICHARD MILLER of UMC spoke at the Rainbow Babies and Childrens Hospital annual symposium in Cleveland, Ohio.

JOHN MORRISON of UMC recently was visiting professor at Stanford University and Kaiser Permanente Medical Center in San Francisco, California and also attended a board of directors meeting of the Central Association of Obstetricians and Gynecologists in Memphis.

WILLIAM NICHOLAS of UMC spoke to the Alcorn Medical Association in Corinth and the Oxford chapter of the American Diabetes Association, and also made a presentation on diabetes at a health professionals meeting in Kosciusko.

HOWARD NICHOLS of UMC was examiner for the American Board of Pediatrics in New Haven, Connecticut and attended the board of directors meeting of the American Board of Family Practice in Lexington, Kentucky.

# A Case In Point For Early Intervention: **MENINGOCOCCEMIA**

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## **PERSONALS/Continued**

JAMES R. STINGILY of Hazlehurst and L. D. TURNER of Crystal Springs have been recertified as diplomates of the American Board of Family Practice.

GUY T. VISE, JR. of Jackson was installed as president of the Southern Medical Association at the 79th Annual Scientific Assembly in Orlando, Florida, last month.

LAMAR WEEMS of UMC was guest speaker at the Carolina Urological Association in Charlotte, North Carolina and spoke on cost containment at a Mississippi Manufacturers Association seminar in Jackson.

WINFRED WISER of UMC spoke at the meeting of the Central Association of Obstetricians and Gynecologists in Memphis, Tennessee.

ARTHUR E. WOOD, III, of Waynesboro announces the association of ARTHUR E. WOOD, JR. for the practice of family medicine at 940 Mathews Drive.

tually stabilized. He was operated on for abdominal injuries and, immediately afterwards, for repair of his torn femoral artery. He survived but had residual impairment of his left leg. His mother filed suit against the private hospital and the physicians at the private hospital for negligence in transferring her son to the county hospital, resulting in aggravating his injuries. A trial court entered judgment for the hospital and physicians and the appellate court affirmed.

On appeal, the Arizona Supreme Court said that the emergency room physician and the vascular surgeon were not liable to the patient. There were no allegations that the treatment that the emergency room physician rendered was negligent. There was nothing in the record to indicate that anything that he did was a cause of the refusal to admit the patient to the hospital or to transfer him to the county hospital. The vascular surgeon did not breach any duty in failing to come to the hospital to attend the patient. He was an on-call specialist prepared to come to the hospital if needed. He was not requested to come to the hospital.

Expert testimony established that emergency surgery was indicated to repair the patient's transected femoral artery. That testimony supported a finding by the jury that emergency medical care was medically indicated for the patient. The hospital's transfer of the patient for financial reasons when emergency care was medically indicated was a breach of the hospital's duty as a matter of law, the Supreme Court concluded. The court remanded the claims against the hospital to the trial court for further proceedings. — *Thompson v. Sun City Community Hospital, Inc.*, 688 P.2d 605 (Ariz. Sup. Ct., June 12, 1984; reconsideration denied, Sept. 11, 1984)

## **Medico-Legal Brief**

### **Private Hospital Breached Duty in Transferring Patient**

A private hospital breached its duty to a patient as a matter of law by transferring the patient to the county hospital for financial reasons when emergency care was medically indicated, the Arizona Supreme Court ruled.

The 13-year-old patient was injured in an accident. He was taken by ambulance to the private hospital. Among his injuries was a transected or partially transected femoral artery. The injury was high on the left thigh and interrupted the flow of blood to the distal portion of the leg. Upon arrival at the emergency room, he was examined and treated by the emergency room physician. Fluids were administered and blood was ordered. An orthopedic surgeon was called in and she recommended surgery. A vascular surgeon was consulted by phone.

Some time after the patient's condition stabilized, the decision was made to transfer him to a county hospital. There was no question that the transfer was for financial reasons. He was transferred to the county hospital, where his condition worsened but even-

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## RECOLLECTIONS

Ten years ago, in the December issue, JOURNAL MSMA reported on a special session of the association's House of Delegates. The meeting had been prompted by a developing crisis in professional liability insurance, and delegates met in Jackson to consider proposals regarding the problem.

During the session delegates authorized the Board of Trustees to proceed with development of a physician-owned corporation to provide a program of medical liability risk retention and education for MSMA members. Delegates also approved an extensive legislative program for introduction to the 1976 Regular Session of the Mississippi Legislature. The legislative program proposed, among other things: to give the State Board of Health authority to restrict physicians' licenses for professional incompetency; to establish malpractice screening panels to review and resolve medical claims prior to a suit being filed; to permit evidence regarding collateral resources in malpractice suits; and to give the Commissioner of Insurance standby authority to establish a Joint Underwriting Association in the event malpractice insurance became unavailable in the state.

That same issue of the JOURNAL reported that Mississippi was among 14 states which had set an all-time high in membership in AMPAC.

Twenty years ago, JOURNAL MSMA noted that the 1965 session of Congress was the most active in history with respect to health legislation. Of 16,882 bills introduced, 950 were concerned with medicine, patient care, education, research, and public health. Major enactments ran the gamut from air pollution to Medicare and covered most of LBJ's health program.

Twenty-five years ago editor Thomas J. Marland, M.D., commented on the growing importance

of genetics. "In the very recent past," he observed, "the subject of genetics as applied to medicine was ignored and generally thought to possess a very nebulous and highly theoretical application for physicians in the actual practice of medicine." But he noted that most medical publications had begun to include discussions on some aspect of the subject, and as a sign of the times, specialty boards were beginning to include questions on genetics in their examinations. He predicted that the significance of genetics to medical practice would continue to grow.

The December 1960 issue of JOURNAL MSMA contained a report from the U. S. Department of Health, Education and Welfare, which indicated that the average American consulted his physician five times a year. Two out of three visits occurred in the office, ten percent in the home, and 14 percent in an outpatient clinic or similar location. About 10 percent of all visits were telephone consultations. The majority (75%) were for the purpose of diagnosis and/or treatment of illness or injury. The remainder of visits were for general checkups and immunizations.

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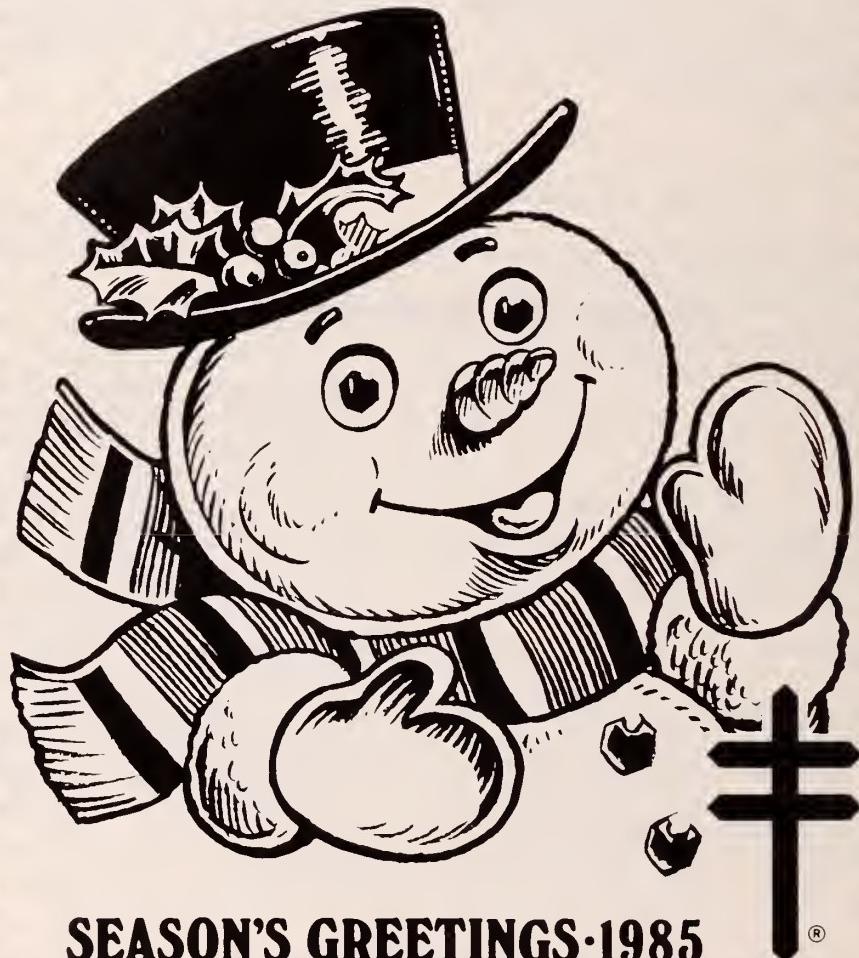
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After 15 years, the experts still concur about the continuing value of Dalmane (flurazepam HCl/Roche). It provides sleep that satisfies patients... and the wide margin of safety that satisfies you.

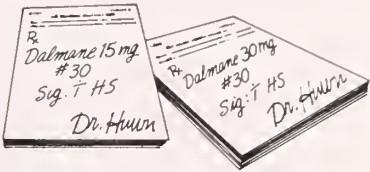
The recommended dose in elderly or debilitated patients is 15 mg. Contraindicated in pregnancy.

**DALMANE®**  
flurazepam HCl/Roche <sup>IV</sup>  
**sleep that satisfies**

15-mg/30-mg  
capsules



**References:** 1. Kales J, et al: *Clin Pharmacol Ther* 12:691-697, Jul-Aug 1971. 2. Kales A, et al: *Clin Pharmacol Ther* 18:356-363, Sep 1975. 3. Kales A, et al: *Clin Pharmacol Ther* 19:576-583, May 1976. 4. Kales A, et al: *Clin Pharmacol Ther* 32:781-788, Dec 1982. 5. Frost JD Jr, DeLucchi MR: *J Am Geriatr Soc* 27:541-546, Dec 1979. 6. Dement WC, et al: *Behav Med*, pp 25-31, Oct 1978. 7. Kales A, Kales JD: *J Clin Psychopharmacol* 3:140-150, Apr 1983. 8. Tennant FS, et al: Symposium on the Treatment of Sleep Disorders, Teleconference, Oct 16, 1984. 9. Greenblatt DJ, Allen MD, Shader RI: *Clin Pharmacol Ther* 21:355-361, Mar 1977.



**DALMANE®**  
flurazepam HCl/Roche <sup>IV</sup>

Before prescribing, please consult complete product information, a summary of which follows:

**Indications:** Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening, in patients with recurring insomnia or poor sleeping habits, in acute or chronic medical situations requiring restful sleep. Objective sleep laboratory data have shown effectiveness for at least 28 consecutive nights of administration. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended. Repeated therapy should only be undertaken with appropriate patient evaluation.

**Contraindications:** Known hypersensitivity to flurazepam HCl, pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patients to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

**Warnings:** Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Withdrawal symptoms rarely reported, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

**Precautions:** In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

**Adverse Reactions:** Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushing, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase, and paradoxical reactions, e.g. excitement, stimulation and hyperactivity.

**Dosage:** Individualize for maximum beneficial effect. Adults: 30 mg usual dosage, 15 mg may suffice in some patients. **Elderly or debilitated patients:** 15 mg recommended initially until response is determined.

**Supplied:** Capsules containing 15 mg or 30 mg flurazepam HCl



Roche Products Inc.  
Monte, Puerto Rico 00701

# #1 FOR SLEEP

After more than 15 years of use, it's #1 for sleep that satisfies.

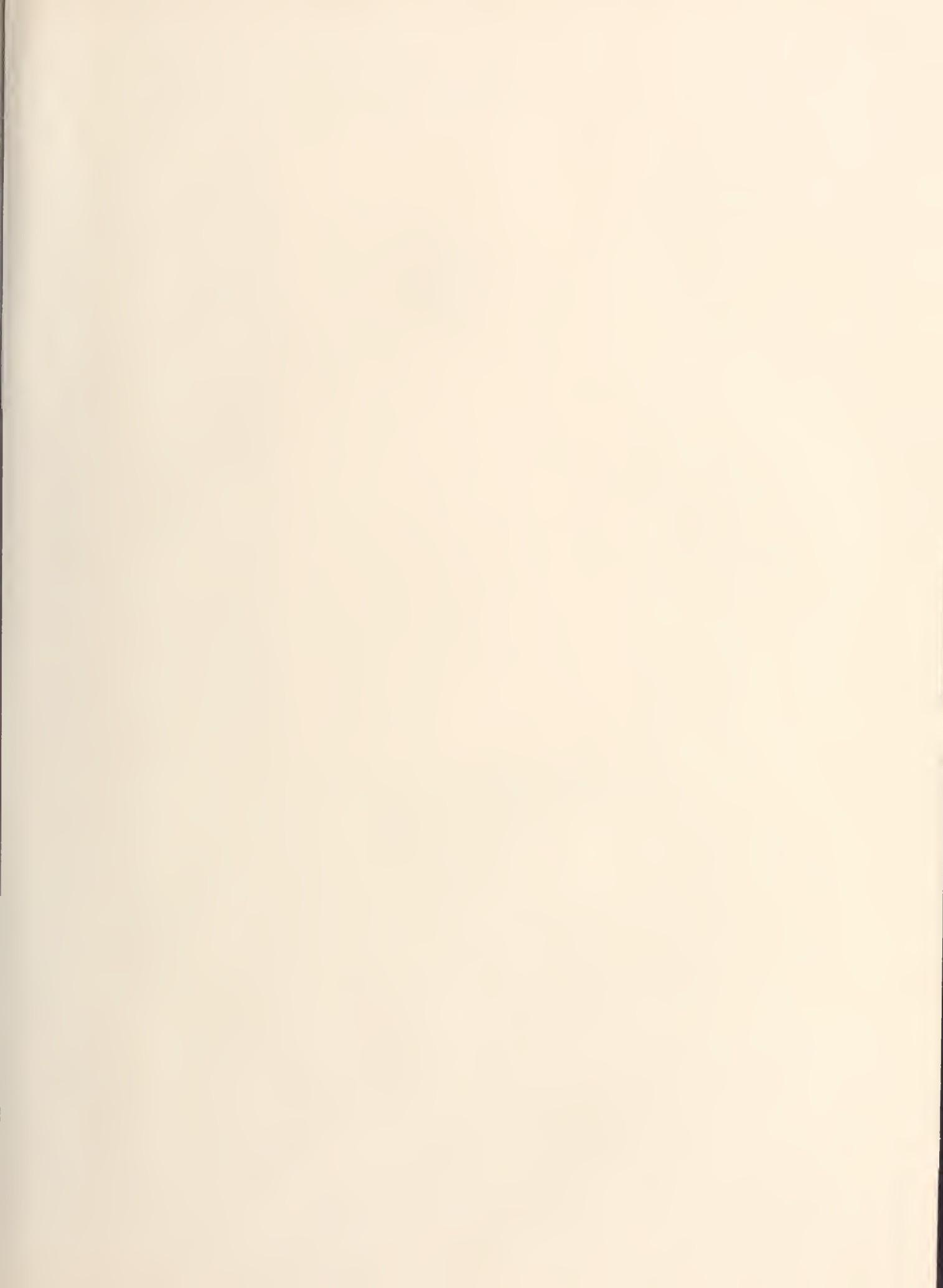
Patients are satisfied because they fall asleep fast and stay asleep till morning.<sup>1-8</sup> And you're satisfied by the exceptionally wide margin of safety.<sup>7-9</sup> As always, caution patients about driving or drinking alcohol.

Please see references and summary of product information on reverse side.

ACADEMY OF MED  
N.Y. 10029-5293  
2 EAST NEW YORK  
ST. 10029-5293

## DALMANE® flurazepam HCl/Roche<sup>®</sup> **sleep that satisfies**









*The New York Academy of Medicine*

DUE IN 4 WEEKS UNLESS RENEWED  
NOT RENEWABLE AFTER 8 WEEKS

DATE BORROWED	BORROWER



